Liquid Metal Fast Breeder Reactors

1972—1973

Prepared for the
Division of Reactor Development and Technology

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GROWTH OF
LITERATURE ON LIQUID METAL FAST BREEDER REACTORS
IN NUCLEAR SCIENCE ABSTRACTS 1948 - 1973

INTRODUCTION

References to 1467 publications on liquid sodium fast breeder reactors cited in *Nuclear Science Abstracts* Volume 26 (1972) through Volume 27 (1973 through June) are contained in this bibliography

The references were retrieved from the *NSA* data base using the computerized RESPONSA search system and were formatted for publication with indexes by the generalized output program GENOUT. The *NSA* subject indexing is displayed under each citation to provide information on the contents of the document.

References are arranged in order by the original *NSA* abstract number which approximately places them in chronological order. Sequence numbers appear beside each reference, and the personal author index refers to these sequence numbers. The subject index refers to the original abstract numbers.

A graph is included with this bibliography showing the growth of literature on LMFBR type reactors.

The scientific and technical journals in which much of the literature appears are available in many libraries throughout the United States. The report literature is on file as microfiche (small sheets of film each containing up to 72 text pages in micro-image form) at the libraries listed on the inside front cover of this publication. Reports can be purchased from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. If printed or full-size copies are available the price is according to the following schedule:

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MAJOR REACTORS

Reactor name	Location	Type	Output	Fuel	Coolant	Startup/ shutdown dates
USA						
EBR-1 (Experimental Breeder Reactor-1)	NRTS, Idaho	First generation fast breeder	1.4 MW(t) 150 kW(e)	Plutonium	Sodium—potassium	1951 startup 1964 shutdown
EBR-2 (Experimental Breeder Reactor-2)	NRTS, Idaho	First generation fast breeder	62.5 MW(t) 16.5 MW(e)	PuO ₂ /UO ₂	Sodium	Nov. 1963 startup
EFFBR (Enrico Fermi Fast Breeder Reactor)	Lagoona Beach, Mich.	First generation fast breeder	200 MW(t) 66 MW(e)	PuO ₂ /UO ₂	Sodium	1963 startup 1972 shutdown
FFTF (Fast Flux Test Facility)	Richland, Washington	Second generation experimental fast reactor	400 MW(t) 0 MW(e)	PuO ₂ /UO ₂	Sodium	1974
SEFOR (Southwest Experimental Fast Oxide Reactor)	Stickler, Arkansas	Second generation experimental fast reactor	20 MW(t) 0 MW(e)	PuO ₂ /UO ₂	Sodium	1969 startup
FARET (Argonne Fast Reactor Experiment Test)	NRTS, Idaho	Experimental reactor to test fast power reactor components	50 MW(t)	Various	Sodium	1965 (project termination)
LMFBR Demonstration plant	Oak Ridge, Tenn.	Fast breeder power reactor	400 MW(e)	PuO ₂ /UO ₂	Sodium	1978 startup
USSR						
BR-1	Obnisk	First generation fast breeder	0 MW(t) 0 MW(e)	Plutonium metal	—	1955 startup 1956 shutdown
BR-5	Obnisk	First generation fast breeder (based on BR-1)	5 MW(t) 0 MW(e)	PuO ₂	Sodium	June 1958 startup
BOR-60	Melekess Ulyanovsk Region	Second generation experimental fast reactor	60 MW(t) 12 MW(e)	PuO ₂ /UO ₂ or UO ₂	Sodium	Dec. 1968 startup
BN-350	Shevchenko (Caspian Sea)	Second generation fast breeder reactor	1000 MW(t) 150 MW(e)	PuO ₂ /UO ₂ or UO ₂	Sodium	Nov. 1972 startup
BN-600 (Beloyarsk—III)	Sverdlovsk Region	Fast breeder	600 MW(e)	—	Sodium	1975

MAJOR REACTORS (Continued)

Reactor name	Location	Type	Output	Fuel	Coolant	Startup/ shutdown dates
UNITED KINGDOM						
DFR Dounreay Fast Reactor	Dounreay	First generation fast breeder	72 MW(t) 14 MW(e)	Uranium metal (45.5% enriched)	Sodium— potassium	Nov. 1959 startup
PFR (Prototype Fast Reactor)	Dounreay, Scotland	Second generation fast breeder prototype	600 MW(t) 250 MW(e)	PuO ₂ /UO ₂	Sodium	1973 startup
CFR (Commercial Fast Reactor)		Fast breeder power reactor	1300 MW(e)			1979 startup
GERMANY, FEDERAL REPUBLIC						
KNK	Karlsruhe	Second generation experimental fast reactor	58 MW(t) 20 MW(e)	—	Sodium	1971 startup
SNR (Schneller Natrium- gekuehlter Reaktor)	Kalkar/Rhein	Second generation fast breeder	730 MW(t) 300 MW(e)	PuO ₂ /UO ₂	Sodium	1979
JAPAN						
JEFR (Japanese Experimental Fast Reactor)	—	Second generation experimental fast reactor	92 MW(t) 0 MW(e)	PuO ₂ /UO ₂	Sodium	1972 startup
MONJU (Japanese Prototype Fast Reactor)			300 MW(e)		Sodium	1977 startup
FRANCE						
RAPSODIE (Cadache Reactors)	St. Paul-les- Durance	First generation fast breeder	20 MW(t) 0 MW(e)	PuO ₂ /UO ₂	Sodium	Jan. 1967 startup
PHENIX	Marcoule	Second generation fast breeder prototype	600 MW(t) 250 MW(e)	PuO ₂ /UO ₂	Sodium	1973
ITALY						
PEC	Brasimone near Bologna	Second generation experimental fast reactor	130 MW(t) 0 MW(e)	UO ₂	Sodium	1974

REFERENCES

- 1   26:238 ACTIVITIES AT NERATOOM. De Boer, G. A. Nucl. Eng. Int.; 16: 409-12(May 1971).
 BOILERS; HEAT EXCHANGERS - design for sodium-cooled reactors
 HEAT EXCHANGERS - cooling system for, development of sodium components for

- 2   26:250 IMPROVEMENTS TO THE ELECTROMAGNETIC PUMPS USED FOR LIQUID METALS. Carbonnel, Henri; Le Frere, Jean (to Groupement Atomique Alsacienne Atlantique). French Patent 2,052,105. 29 Mar 1971. Filed 16 Jul 1969. (In French).
 ELECTROMAGNETIC PUMPS - description of improved, for liquid metals

- 3   26:254 (ANL--7842) THEORETICAL STUDY OF TRANSIENT SODIUM BOILING IN REACTOR COOLANT CHANNELS UTILIZING A COMPRESSIBLE FLOW MODEL. Siegmann, Eric R. (Argonne National Lab., Ill.). Jul 1971. Contract W-31-109-eng-38. 167p. Dep. NTIS. Thesis. Submitted to Northwestern Univ., Evanston, Ill.
 COMPUTER PROGRAMS - HEAT 3 and ZDB, for analysis of sodium behavior in reactor coolant channels, FORTRAN for CDC 6600
 REACTORS, LIQUID METAL-COOLED - sodium boiling in coolant channels of, computer program for study of transient
 SODIUM - boiling in reactor coolant channels, computer program for study of transient

- 4   26:372 (TID--25816) TOPICAL REPORT ON LMFBR INSTRUMENTATION: STRAIN GAGES. PHASE I. HIGH-TEMPERATURE STRAIN GAGE DEVELOPMENT PROGRAM. TASK 1. LITERATURE AND FIELD SURVEY. Drennen, D. C.; Jackson, C. M.; Crites, Nelson; Sorenson, J. E. (Battelle Columbus Labs., Ohio). 13 Nov 1970. Contract N083-0004. 103p. Dep. NTIS. For Atomics International, Canoga Park, Calif. Liquid Metal Engineering Center.
 LIQUID METAL FAST BREEDER REACTOR - instrumentation for, survey on high temperature strain gages for
 STRAIN GAGES - development of high-temperature, survey on

- 5   26:411 (AI-AEC--12818) AEC UNCLASSIFIED PROGRAMS. Quarterly Technical Progress Report, January--March 1969. (Atomics International, Canoga Park, Calif.). Contract AT(04-3)-701. 52p. Dep. NTIS.
 CHEMISTRY - research progress on high-temperature
 ELECTRONS - reactions with amino acids, ESR spectral studies on free radicals produced by
 FLOWMETERS - development of transit time
 METALS - flow of liquid, measurements of
 RADIATION CHEMISTRY - research progress in
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant boiling characteristics for sodium
 SOLIDS - radiation effects on crystalline
 SUPERCONDUCTORS - electric conductivity in point contact of, differential

- 6   26:412 (AI-AEC--12860) AEC UNCLASSIFIED PROGRAMS. Annual Technical Progress Report, GFY 1969. (Atomics International, Canoga Park, Calif.). Contract AT(04-3)-701. 68p. Dep. NTIS.
 CHEMISTRY - research progress on high-temperature
 METALLURGY - electron structure of alloys and metals, research progress in
 RADIATION CHEMISTRY - research progress in

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant boiling studies for sodium
 SOLIDS - radiation effects on crystalline, research progress in

- 7 26:413 (AI-AEC--12887) AEC UNCLASSIFIED PROGRAMS. Quarterly Technical Progress Report, July--September 1969. (Atomics International, Canoga Park, Calif.). Contract AT(04-3)-701. 42p. Dep. NTIS.

ELECTRONS - reactions with amino acids, dipeptides, and peptides, radiolytic mechanisms from
 METALLURGY - electron structure of alloys and metals, research progress in
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant boiling characteristics for sodium
 SOLIDS - radiation effects on crystalline, research progress in

- 8 26:414 (AI-AEC--13007) FUELS, MATERIALS, AND COOLANT CHEMISTRY PROGRAMS. Annual Technical Progress Report, GFY 1971. (Atomics International, Canoga Park, Calif.). 15 Aug 1971. Contract AT(04-3)-824. 129p. Dep. NTIS.

ALUMINUM - radioinduced helium production in, fast neutron
 ALUMINUM; BORON; BORON ISOTOPES B-10 - neutron reactions (n, α), fission-spectrum-averaged cross sections for
 CHROMIUM - radioinduced helium production in, fast neutron
 CHROMIUM; COBALT; COPPER; COPPER ISOTOPES Cu-63 - neutron reactions (n, α), fission-spectrum-averaged cross sections for
 EXPERIMENTAL BREEDER REACTOR-II - structural materials for, radioinduced helium production in
 FAST FLUX TEST FACILITY - cooling system for, testing of freeze vents and sodium vapor traps for
 HELIUM - production by fast neutron reactions with elements in reactor materials, long-term in-pile studies of
 IRON - radioinduced helium production in, fast neutron
 IRON; MANGANESE; MOLYBDENUM - neutron reactions (n, α), fission-spectrum-averaged cross sections for
 NEUTRONS, FAST - effects on helium distribution in refractory metals and stainless steel
 NICKEL - radioinduced helium production in, fast neutron
 NICKEL; NITROGEN ISOTOPES N-14 - neutron reactions (n, α), fission-spectrum-averaged cross sections for
 PROTONS - effects on void distribution in helium-injected Type 316 stainless steel
 SODIUM - effects on stress rupture of Types 304 and 316 stainless steel at 900 to 1200°F
 SODIUM - corrosive effects on Type 316 stainless steel at 1200°F
 SODIUM OXIDES - formation on surfaces exposed to FFTF argon cover gas, model for studies of
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 STAINLESS STEEL - stress rupture of Types 304 and 316, effects of flowing and static sodium at 900 to 1200°F on
 STAINLESS STEEL - corrosion of Type 316, by sodium at 1200°F
 STAINLESS STEEL - carburization of Type 304, by sodium at 1100°F, effects of stress on
 STAINLESS STEEL - stress rupture of Type 316, in sodium at 1200°F, heat-to-heat variations in
 STAINLESS STEEL - radioinduced void formation in helium-injected Type 316, proton
 STAINLESS STEEL - creep of Type 316, at 700°C, effects of injected helium on
 STAINLESS STEEL - radioinduced helium production in Type 304, fast neutron
 TITANIUM - neutron reactions (n, α), fission-spectrum-averaged cross sections for
 TRAPS - testing of FFTF sodium vapor, review of methods for
 VANADIUM; ZIRCONIUM - neutron reactions (n, α), fission-spectrum-averaged cross sections for

- 9 26:415 (GEMP--724) GE-NSP UNCLASSIFIED CONTRIBUTION TO THE 29th HIGH TEMPERATURE FUELS COMMITTEE MEETING AT GENERAL ELECTRIC CO., BREEDER REACTOR DEVELOPMENT OPERATION, DECEMBER 8--10, 1969. Brasfield, H. C. (comp.) (General Electric Co., Cincinnati, Ohio. Missile and Space Div.). Dec 1969. Contract AT(40-1)-2847. 73p. (CONF-691228). Dep. NTIS.

BERYLLIUM OXIDES - melting point of
 INCOLOY 800 - fatigue and tensile properties of
 LIQUID METAL FAST BREEDER REACTOR - fuel cladding for, development of molybdenum
 MOLYBDENUM - production of high-purity, for LMFBR fuel cladding
 MOLYBDENUM ALLOYS AND SYSTEMS - Mo--Re--W-base, fabrication of thermocouple sheaths of

- RHENIUM ALLOYS AND SYSTEMS - Re--W-base, fabrication of thermocouple sheaths of
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 URANIUM OXIDES UO_2 - compatibility with stainless steel at 800 to 1300°C
 ZIRCONIUM OXIDES - melting point of
- 10 26:425 (RD/B/N--1931) CARBON BEHAVIOUR IN SODIUM SYSTEMS. PART II. PREDICTED CARBON TRANSFER. Hobdell, M. R. (Central Electricity Generating Board, Berkeley (England). Berkeley Nuclear Labs.). Aug 1971. 27p. (CFR-BMWP-P--71-25). Dep. NTIS (U. S. Sales Only).
- CARBON - transport in reactor coolant sodium, direction and magnitude of
 REACTORS, LIQUID METAL-COOLED - cooling system for, carbon transport by sodium in steel
 SODIUM - carbon transport in steel coolant loop
- 11 26:641 (RCN--148) PROGRESS REPORT OF THE MATERIALS DEPARTMENT, FIRST QUARTER 1971. Sens, P. F. (ed.) (Reactor Centrum Nederland, Petten). Jun 1971. 78p. Dep. NTIS (U. S. Sales Only).
- GRAPHITE - radiation effects on dimensional changes in test specimens of, at 900 to 1200°C, in-pile
 MOLYBDENUM - radioinduced void formation in, effects of annealing on neutron
 NEUTRONS - effects on tensile properties of Types 304 and 316 stainless steel
 NEUTRONS - effects on void formation in molybdenum, niobium, and vanadium, relations with annealing
 NIOBIUM - radioinduced void formation in, effects of annealing on neutron
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 NIOBIUM ALLOYS AND SYSTEMS - Nb--Sn--Zr-base, corrosion by loop steam and water at 345°C, effects of exposure time on
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 STEAM - corrosive effects on Zircaloy-2 and zirconium-base alloys at 345°C, effects of exposure time on
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 URANIUM OXIDES UO_2 - fabrication of fuels of, electrolytic and sol gel methods for
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 URANIUM OXIDES UO_2 - radiation effects on clad pellets of, in-pile
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 ZIRCONIUM ALLOYS AND SYSTEMS - Nb--Sn--Zr-base, corrosion by loop steam and water at 345°C, effects of exposure time on
- 12 26:1549 (GEAP--13719) INTERIM STRESS DESIGN CRITERIA FOR LMFBR VESSEL AND CORE STRUCTURES. Tsui, E. Y. W.; Marron, J. V.; Brown, A. T. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). May 1971. Contract W-7405-eng-26; Subcontract 3446. 125p. Dep. NTIS. For Oak Ridge National Lab., Tenn.
- LIQUID METAL FAST BREEDER REACTOR - core structures and vessel for, stress criteria for design of, (T)
- 13 26:1550 (HEDL-TME--71-127) FUNCTION TO PREDICT LMFBR HELIUM RELEASE BASED ON BORON CARBIDE IRRADIATION DATA FROM THERMAL REACTORS. Russcher, G. E.; Pitner, A. L. (Hanford

Engineering Development Lab., Richland, Wash.). 30 Sep 1971. Contract AT(45-1)-2170. 45p. Dep. NTIS.

BORON CARBIDES - radiation effects on helium release from, in fast reactor control materials, (T)
 HELIUM - release from irradiated boron carbide (B_4C) fast reactor control materials, (T)
 LIQUID METAL FAST BREEDER REACTOR - control materials for, helium release from irradiated boron carbide (B_4C), (T)
 REACTOR CONTROL ELEMENTS - radiation effects on helium release from boron carbide (B_4C), in fast reactors

- 14 26:1558 (ANL--7778) NEUTRONIC AND THERMAL-HYDRAULIC ANALYSES OF MIXED CORES FOR EBR-II. EBR-II Project. Gillette, J. L.; Golden, G. H.; Sehgal, B. R. (Argonne National Lab., Ill.). Jul 1971. Contract W-31-109-eng-38. 58p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - core loadings for, neutronic and thermal-hydraulic analyses of mixed, (T)

- 15 26:1565 (ORNL-TM--3606) FAST REACTOR SHIELDING ACTIVITY NO. 40 01 61 189A NO. 10028. Monthly Progress Report, September 1971. Mynatt, F. R.; Clifford, C. E.; Gritzner, M. L.; Maerker, R. E. (Oak Ridge National Lab., Tenn.). 18 Oct 1971. 34p. Dep. NTIS.

CONCRETES - neutron attenuation in, (E)
 FAST TEST REACTOR - shielding for, discrete ordinates analysis of core support grid-plate
 FAST TEST REACTOR - shielding for, effects of composition on neutron transmission of thermal, (T)
 LIQUID METAL FAST BREEDER REACTOR - shielding for, neutron beam attenuation by concrete, (E)
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 NEUTRONS - attenuation in concrete and liquid sodium, (E)
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 SODIUM - neutron attenuation in, (E)

- 16 26:1566 (EURFNR--924) MODIFICATION OF THE DESIGN OF INTERMEDIATE HEAT EXCHANGERS FOR SODIUM-COOLED REACTORS USING FERRITIC MATERIALS. Schnauder, H.; Mueller, R. A. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Translation of report KFK--1387. 28p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.

HEAT EXCHANGERS - economics of sodium cooled reactor intermediate, effects of costs of austenitic versus ferritic steels on, (T)
 REACTORS, LIQUID METAL-COOLED - heat exchangers for sodium cooled, economics of austenitic versus ferritic steels for intermediate, (T)

- 17 26:1568 PHENIX REACTOR: PROBLEMS POSED BY THE REACTOR VESSEL. Lagrange, M. (CEN de Saclay, Gif-sur-Yvette, France). Energ. Nucl. (Paris); 13: No. 3, 176-82 (May 1971). (In French).

PHENIX FAST REACTOR - pressure vessel for, design and fabrication problems with
 PRESSURE VESSELS - design problems with liquid metal cooled fast reactor
 PRESSURE VESSELS - fabrication problems with liquid metal cooled fast reactor

- 18 26:1571 (CONF-710414--11) FUEL DESIGN FOR THE AI LMFBR DEMONSTRATION PLANT. Bernath, L.; Wolfe, W. B. (Atomics International, Canoga Park, Calif.). [nd]. 12p. Dep. NTIS. From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971).

LIQUID METAL FAST BREEDER REACTOR - fuel rods for, design of stainless steel clad mixed oxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , design of stainless steel clad fuel elements of
 REACTOR FUEL ELEMENTS - design of stainless steel clad mixed uranium oxide
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 STAINLESS STEEL - design of mixed oxide fuel element cladding of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , design of stainless steel clad fuel elements of

- 19 26:1573 (GEAP--13730) EFFECT OF STOICHIOMETRY ON THE BEHAVIOR OF MIXED-OXIDE FUEL DURING EXTENDED OPERATION IN FAILED PINS. Murata, R. E.; Craig, C. N.; Pfefferlen, H. C.; Novak,

P. E. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Jul 1971. Contract AT(04-3)-189. 52p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, effects of stoichiometry on sodium reactions with failed mixed oxide, (E)
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URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , reactions with liquid sodium, effects of stoichiometry on, (E)

- 20 26:1575 (TID--25847) LMFBR FUEL RECYCLE IN THE UNITED STATES: AN ELEMENTARY OVERVIEW. Wymer, R. G. (Oak Ridge National Lab., Tenn.). [1971]. 26p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuel recycle for, estimates of U.S. reprocessing loads for
RADIOCHEMICAL PROCESSING PLANTS - work loads for U.S. reactor fuel, estimates of effects of fast breeder reactor programs on
REACTOR FUELS - recycle of fast breeder, estimates of U.S. reprocessing loads for

- 21 26:1580 (ANL/EBR--43) LOADING DIAGRAMS OF EXPERIMENTAL SUBASSEMBLIES STARTING IRRADIATION IN EBR-II RUNS 43-50. EBR-II Project. Case, J. C. (comp.) (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Aug 1971. Contract W-31-109-eng-38. 69p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel subassemblies for, loading diagrams for experimental

- 22 26:1586 (AI-AEC--12818, pp 5-14) NUCLEAR SAFETY (KINETICS): BOILING STUDIES FOR SODIUM REACTOR SAFETY. Logan, D.; Landoni, J.; Baroczy, C. (Atomics International, Canoga Park, Calif.). Jan--Mar 1969. In AEC unclassified programs.

HEATERS - development of liquid sodium
LIQUID METAL FAST BREEDER REACTOR - coolant boiling characteristics of, analysis of superheated
SODIUM - boiling of liquid, superheat conditions in reactor cooling channels for

- 23 26:1587 (AI-AEC--12860, pp 5-21) NUCLEAR SAFETY (KINETICS): BOILING STUDIES FOR SODIUM REACTOR SAFETY. Logan, D.; Landoni, J.; Baroczy, C. (Atomics International, Canoga Park, Calif.). 1969. In AEC unclassified programs.

HEATERS - development of liquid sodium
LIQUID METAL FAST BREEDER REACTOR - coolant boiling characteristics of, analysis of superheated
SODIUM - boiling of liquid, superheat conditions in reactor cooling channels for

- 24 26:1588 (AI-AEC--12887, pp 5-19) NUCLEAR SAFETY (KINETICS): BOILING STUDIES FOR SODIUM REACTOR SAFETY. Logan, D.; Landoni, J.; Baroczy, C. (Atomics International, Canoga Park, Calif.). Jul--Sep 1969. In AEC unclassified programs.

HEATERS - development of liquid sodium
LIQUID METAL FAST BREEDER REACTOR - coolant boiling characteristics of, analysis of superheated
SODIUM - boiling of liquid, superheat conditions in reactor cooling channels for

- 25 26:1589 (ANL--7859) POSTACCIDENT HEAT REMOVAL IN LMFBRs: IN-VESSEL CONSIDERATIONS. Hesson, J. C.; Sevy, R. H.; Marciniak, T. J. (Argonne National Lab., Ill.). Sep 1971. Contract W-31-109-eng-38. 95p. Dep. NTIS.

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - core meltdown accidents in, in-vessel heat removal and fuel debris retention following, (T)

- 26:1592 (RT/ING--(70)3) POWER TRANSIENTS IN A SODIUM COOLED FAST REACTOR. Tavoni, R. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 1970. 27p. (In Italian). INIS.
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - transients in sodium cooled, analysis of power, (T)
- 26:1593 (WARD--5446) FISSION GAS EJECTION CHARACTERISTICS AND ITS EFFECT ON ADJACENT FUEL PINS IN A LMFBR. Carelli, Mario D.; Coffield, Ronald D. Jr. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Sep 1970; Revised Feb 1971. Contracts AT(30-1)-4200; AT(45-1)-2171. 24p. (CONF-710414--13). Dep. NTIS. From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971).
- FISSION PRODUCTS - release from failed fuel pins, probability of adjacent pin damage from, (T)
- LIQUID METAL FAST BREEDER REACTOR - fuel pin failure in, characteristics of fission gas release following, (T)
- REACTOR FUEL ELEMENTS - failure of sodium cooled fast pin, characteristics of fission gas release following, (T)
- 26:1604 (DOCKET-50231--100) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Reactor Vessel Main Flange Structural Evaluation. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Development Operation). 29 Oct 1971. 40p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - pressure vessel for, structural evaluation of main flange for
- 26:1605 (DOCKET-50231--101) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Safety System Relay Malfunction, October 17, 1971. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 5 Nov 1971. 4p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - engineered safeguards for, malfunction of mercury wetted relay in redundant subchannel of
- 26:1609 (ORNL-TM--3596) MONTE CARLO ANALYSIS OF THE EXACT GEOMETRIC MOCKUP OF ZPR-III ASSEMBLY 48. Cramer, S. N. (Oak Ridge National Lab., Tenn.). 13 Oct 1971. 41p. Dep. NTIS.
- CRITICAL ASSEMBLIES - multiplication factor for exact geometric mockup of ZPR-3 Assembly 48, Monte Carlo calculation of
- 26:1620 (WHAN-SA--109) EVOLUTION: FTR FUEL PIN DESIGN TO PROCUREMENT. Burgess, Carl A.; French, Peter M. (Hanford Engineering Development Lab., Richland, Wash.). [1971]. Contract AT(45-1)-2170. 28p. (CONF-710414--12). Dep. NTIS. From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971).
- FAST TEST REACTOR - fuel pins for, design and procurement program for
- 26:1970 (HEDL-TME--71-101) DISCUSSION OF SAND DIKES IN THE FFTF EXCAVATION. (Bechtel Corp., San Francisco, Calif.). 7 Jun 1971. Contract AT(45-1)-2170. 12p. Dep. NTIS. For Hanford Engineering Development Lab., Richland, Wash.
- FAST FLUX TEST FACILITY - excavation for, structural features of sand dikes in
- SEDIMENTARY DEPOSITS - geology of FFTF containment structure excavation sand dikes
- 26:2041 HIGH-TEMPERATURE ELECTROMAGNETIC SODIUM PUMP. Adkins, H. E.; Olson, W. H. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 785-6 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- ELECTROMAGNETIC PUMPS - performance for pumping sodium to 1200°F
- SODIUM - pump for high-temperature, performance of electromagnetic

- 34 26:2135 ACOUSTICAL SCANNED HOLOGRAPHY TECHNIQUES FOR VIEWING IN LIQUID-SODIUM REACTORS. Collins, H. Dale (Battelle-Northwest, Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 727-8(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- MATERIALS TESTING, NONDESTRUCTIVE - equipment and method for acoustical scanned holography, in liquid-sodium reactors
 REACTORS, LIQUID METAL-COOLED - components for, acoustical scanned holography method for inspection of
- 35 26:2168 CRITICALITY SAFETY CONSIDERATIONS IN THE DESIGN OF A LARGE CONCRETE STORAGE ARRAY FOR PLUTONIUM OXIDE--URANIUM OXIDE FUEL SUBASSEMBLIES. Brown, C. L.; Davenport, L. C. (Battelle-Northwest, Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 683-4(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- CRITICALITY - safety considerations in design of large concrete storage array for plutonium oxide--uranium oxide fuel subassemblies
 FAST FLUX TEST FACILITY - fuel subassembly storage area for, design of large concrete criticality safe
 PLUTONIUM OXIDES PuO_2 ; URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , handling and storage of fuel elements of, design of large concrete criticality safe
- 36 26:2189 REQUALIFICATION EXAMINATION OF IRRADIATED FERMI SUBASSEMBLIES. Matte III, J. (Atomic Power Development Associates, Inc., Detroit). Trans. Amer. Nucl. Soc.; 14: No. 2, 884-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- FERMI FAST BREEDER REACTOR - fuel elements for, equipment and method for qualification examination of irradiated
 HOT CELLS - description of alpha-gamma, for examination of irradiated Fermi reactor fuels
- 37 26:2326 (ANCR--1007) INSTRUMENTATION AND CONTROL BRANCH ANNUAL REPORT, 1970. Smith, G. L. (Aerojet Nuclear Co., Idaho Falls, Idaho). Jul 1971. Contract AT(10-1)-1375. 273p. Dep. NTIS.
- ADVANCED TEST REACTOR - fuel elements for, eddy-current techniques for flow detection in
 ADVANCED TEST REACTOR - fuel elements for, holograph techniques for swage joint tightness of
 AMPLIFIERS - circuit for differential, for fission couple
 BRAZING - techniques for fabrication of instrumented fuel pins
 DISPLACEMENT GAGES - development of variable reluctance, for measurement of reactor core vessel motion
 DISPLACEMENT GAGES - development of holographic
 EDDY CURRENT TESTING - equipment for flow detection in ATR fuel elements
 EXTENSOMETERS - development of eddy-current diametrical, for testing of pressurized tubular sections
 FLOWMETERS - development for use in LOFT testing
 FLOWMETERS - development for spent fuel reprocessing lines
 FLOWMETERS - development of ultrasonic, for liquid sodium
 INSTRUMENTS - development at NRTS
 LEAK DETECTORS - development of eddy-current, for liquid sodium
 LEVEL INDICATORS - development of ultrasonic, for LOFT testing
 LEVEL INDICATORS - development of eddy-current, for liquid sodium
 METALS - fatigue testing of, system for
 MOTORS - speed control system for
 NATIONAL REACTOR TESTING STATION - instrumentation for, development of
 PRESSURE GAGES - development of transient, for use in liquid sodium
 PUMPS (LIQUID METAL) - current monitor for annular linear induction, harmonic
 REACTOR CONTROL SYSTEMS - development of auto-rod servo
 REACTOR FUEL ELEMENTS - reprocessing of, flowmeter for nitric acid slurries in
 REACTOR FUEL ELEMENTS - cladding for liquid metal cooled, eddy-current diametrical extensometer for testing of
 REACTOR FUEL ELEMENTS - testing of electrically heated pin type, for coolant loss accident simulation
 REACTOR FUEL ELEMENTS - cladding for, effects of coolant loss accident conditions on Zircaloy
 REACTOR FUEL ELEMENTS - thickness measurements of plate type, ultrasonic
 REACTOR FUEL ELEMENTS - fabrication of instrumented pin type, brazing techniques for
 REACTOR SAFETY EXPERIMENTS - data acquisition and display system for LOFT
 REACTORS, PRESSURIZED-WATER - thermocouples for, corrosion resistant properties of
 SODIUM - pressure measurements of liquid, development of gage for

SODIUM - leak detection of liquid, eddy-current gage for
 SODIUM - level measurements of liquid, eddy-current gage for
 SODIUM - flow measurements of liquid, ultrasonic technique for
 THERMOCOUPLES - corrosion of, effects of pressurized water reactor environment on
 THERMOCOUPLES - amplifier for fission, differential
 THICKNESS GAGES - development of ultrasonic, for plate type fuel elements
 VOID FRACTION - detection in steam--water mixture, ultrasonic burst attenuation detector
 for
 ZIRCALOY - embrittlement of, effects of coolant loss accident conditions on

- 38 26:2512 THERMAL EXPANSIONS AND STRESSES IN SWOLLEN METAL FUEL ELEMENTS. Chang, L. K.; Lo, R. K.; Sehgal, B. R. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 628-9(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, thermal expansions and stresses in swollen

- 39 26:2598 MARK II FTR FUEL ASSEMBLY SODIUM FLOW TEST FABRICATION AND INSPECTION. Myers, R. L.; Blahnik, D. E. (WADCO Corp., Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 634-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST TEST REACTOR - fuel element testing for, sodium flow assembly fabrication for
 SODIUM - effects on FTR fuel elements at high temperatures, test assembly fabrication for studies of

- 40 26:3096 TWO-DIMENSIONAL SHIELDING CALCULATIONS USING A COMBINATION OF DIFFUSION THEORY AND LINE-OF-SIGHT METHOD. Voosebrecker, H. (Interatom, Bensberg, Ger.). Trans. Amer. Nucl. Soc.; 14: No. 2, 937-8(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

COMPUTER PROGRAMS - DLS, for shielding calculations on KNK-II fast reactor
 KNK POWER REACTOR - shielding of KNK-II, calculations with DLS code
 SHIELDING - calculations of two-dimensional, using combination of diffusion theory and line-of-sight method

- 41 26:3683 (DOCKET-50016--131) ENRICO FERMI ATOMIC POWER PLANT. Report for April 1971. (Power Reactor Development Co., Detroit, Mich.). 7 Sep 1971. 11p. (PRDC-EF--92). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during April 1971

- 42 26:3684 (DOCKET-50016--133) ENRICO FERMI ATOMIC POWER PLANT. Report for June 1971. (Power Reactor Development Co., Detroit, Mich.). 15 Nov 1971. 15p. (PRDC-EF--94). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during June 1971

- 43 26:3754 (ANL--7861) REACTOR DEVELOPMENT PROGRAM PROGRESS REPORT, SEPTEMBER 1971. (Argonne National Lab., Ill.). 26 Oct 1971. Contract W-31-109-eng-38. 169p. Dep. NTIS.

CRITICAL ASSEMBLIES - operation of ZPPR and ZPR-6 during September 1971
 EXPERIMENTAL BREEDER REACTOR-II - operation during September 1971
 FAST FLUX TEST FACILITY - coolant for, monitoring and sampling systems for sodium, (E)
 HEATED EFFLUENTS - dispersion in Lake Michigan of power reactor, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - development during September 1971
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development for, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - cores for, heat transfer and fluid flow characteristics of, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - instrumentation for, development of, (E)
 LIQUID METAL FAST BREEDER REACTOR - coolant for, monitoring and sampling systems for sodium, (E)
 LIQUID METAL FAST BREEDER REACTOR - physics studies on, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - safety studies on, (E/T)

LAKE MICHIGAN - thermal plume dispersion in, (E/T)
 REACTOR FUEL ELEMENTS - development of stainless steel clad mixed oxide, (E/T)
 REACTOR FUELS - development of mixed oxide fast, (E/T)
 REACTOR FUELS - reprocessing methods for fast, (E)
 REACTOR SAFETY EXPERIMENTS - operation of TREAT, during September 1971

- 44 26:3756 (EURFNR--940) TECHNICAL AND ECONOMIC STATUS AND FUTURE OUTLOOK FOR NUCLEAR ENERGY IN THE WEST GERMAN POWER INDUSTRY. PART II. STUDY CONDUCTED ON BEHALF OF THE WEST GERMAN MINISTRY FOR EDUCATION AND SCIENCE. Haefele, W.; Kraemer, H. (Kernforschungsanlage, Juelich (West Germany). Institut fuer Reaktorentwicklung. Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Angewandte Reaktorphysik). Translation of report JUL--775-RG; KFK--1430. 99p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.
- FEDERAL REPUBLIC OF GERMANY - power reactors for, development of high temperature gas cooled and liquid sodium cooled fast breeder
 REACTORS, FAST - development in Federal Republic of Germany of liquid sodium cooled breeder
 REACTORS, GAS-COOLED - development in Federal Republic of Germany of high temperature
 REACTORS, LIQUID METAL-COOLED - development in Federal Republic of Germany of fast breeder
 REACTORS, POWER - development in Federal Republic of Germany of high temperature gas cooled and liquid sodium cooled fast breeder
- 45 26:3761 250MW(e) PROTOTYPE FAST REACTOR AT DOUNREAY-1. Steam Heat. Eng.; 41: No. 479, 6-12(Oct 1971).
- PROTOTYPE FAST REACTOR - design parameters of
- 46 26:3762 IMPROVEMENTS IN OR RELATING TO LIQUID METAL COOLED FAST BREEDER NUCLEAR REACTORS. Jackson, George Oliver (to United Kingdom Atomic Energy Authority). British Patent 1,249,331. 13 Oct 1971. Filed 30 Jan 1968.
- REACTORS, FAST - design characteristics of liquid metal cooled power breeder
 REACTORS, LIQUID METAL-COOLED - design characteristics of fast breeder power
 REACTORS, POWER - design characteristics of liquid metal cooled fast breeder
- 47 26:3763 SIMULATOR OF THE PHENIX POWER PLANT. Fourcade, C. (CEN de Cadarache, Saint-Paul-les-Durance, France). Bull. Instrum. Nucl.; No. 43, 37-8(Mar 1971). (In French).
- PERSONNEL - training of reactor operator, use of Phenix Fast Reactor simulator for
 PHENIX FAST REACTOR - operator training for, simulator for
 REACTOR SIMULATORS - operator training in Phenix Fast, description of
- 48 26:3766 NONDESTRUCTIVE EXAMINATION OF HIGH-FLUENCE EBR-II THIMBLES. Phipps, R. D. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 601(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- EXPERIMENTAL BREEDER REACTOR-II - core thimbles for, nondestructive testing of irradiated
- 49 26:3767 ANALYSES OF EBR-II CORE-COMPONENT DEFORMATIONS. Bump, T. R. (Argonne National Lab., Ill.); McGinnis, F. D.; Phipps, R. D.; Strain, R. V. Trans. Amer. Nucl. Soc.; 14: No. 2, 601-2(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- EXPERIMENTAL BREEDER REACTOR-II - core components for, radiation effects on deformation of
- 50 26:3768 REACTOR IN-CORE TEMPERATURE MONITOR. Franklin, D. G. (Argonne National Lab., Idaho Falls, Idaho); Ruther, W. E. Trans. Amer. Nucl. Soc.; 14: No. 2, 632-3(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- EXPERIMENTAL BREEDER REACTOR-II - coolant temperature in, monitor for in-core measurement of

- 51 26:3770 CORE DESIGN OF CE LMFBR DEMONSTRATION PLANT. Menzel, G.; Caspersson, S. A.; Noyes, R. C. (Combustion Engineering, Inc., Windsor, Conn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 714(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - core design for 500 MW(e)

- 52 26:3771 LMFBR CORE DESIGN FOR SWELLING ACCOMMODATION. Burchill, W. E.; Menzel, G.; Noyes, R. C.; Dupen, C. F. G. (Combustion Engineering, Inc., Windsor, Conn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 714-15(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - core design for 500 MW(e), control of swelling by

- 53 26:3772 NUCLEAR DESIGN OF THE WESTINGHOUSE 300-MW(e) LMFBR DEMONSTRATION PLANT. Dyos, M. W. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 715-16(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - core design for 300 MW(e)

- 54 26:3782 NEED FOR BENCHMARK TESTS. Hannum, W. H.; Hemmig, P. B.; Lewellen, J. W.; Wiener, M. (Atomic Energy Commission, Washington, D. C.). Trans. Amer. Nucl. Soc.; 14: No. 2, 797(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - test program for, development of benchmark

- 55 26:3784 REVIEW OF CSEWG FAST REACTOR BENCHMARK TESTING. Alter, Harry (Atomics International, Canoga Park, Calif.). Trans. Amer. Nucl. Soc.; 14: No. 2, 798-9(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - physics measurements for, review of benchmark test program, (E/T)

- 56 26:3785 SENSITIVITY OF RESULTS TO CALCULATIONAL MODEL REPRESENTATIONS IN ENDF/B BENCHMARK TESTING. Palmer, R. G. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 799(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - physics measurements for, review of benchmark test program, (E/T)

- 57 26:3786 TESTS OF ENDF/B AND MODIFIED ENDF/B DATA AGAINST INTEGRAL EXPERIMENTS. Pitterle, T. A.; Paik, N. C.; Durston, C. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 799-801(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - physics measurements for, comparison of ENDF/B and modified ENDF/B data for

- 58 26:3787 CALCULATIONS OF ENDF/B FAST REACTOR BENCHMARK CASES USING THE LASL-TD CROSS-SECTION LIBRARY. Hiron, Thomas J. (Los Alamos Scientific Lab., N. Mex.). Trans. Amer. Nucl. Soc.; 14: No. 2, 813-14(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - physics measurements for, comparison of cross section sets for benchmark test program, (E/T)

- 59 26:3794 APPLICATIONS OF NEUTRON SPECTRA IN THE DEMONSTRATION BENCHMARK. Simons, G. G.; Palmer, R. G.; Olson, A. P. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 834-5 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- CRITICAL ASSEMBLIES - neutron spectra for liquid metal cooled fast reactor benchmark program
LIQUID METAL FAST BREEDER REACTOR - neutron spectra for benchmark assemblies, (E/T)
NEUTRONS - spectra for liquid metal cooled fast reactor benchmark assemblies
- 60 26:3795 SIMPLE FOIL METHOD FOR LMFBR SPECTRUM DETERMINATION. Leung, T. C.; Driscoll, M. J. (Massachusetts Inst. of Tech., Cambridge). Trans. Amer. Nucl. Soc.; 14: No. 2, 841 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- LIQUID METAL FAST BREEDER REACTOR - neutron spectra in, performance of foil activation methods for measurement of
NEUTRONS - spectra in liquid metal cooled fast reactors, performance of foil activation methods for measurement of
RADIATION DETECTORS, FISSION FOIL - performance for liquid metal cooled fast reactor neutron spectra measurements
- 61 26:3796 EXPERIMENTAL STUDIES IN THREE CORE ENVIRONMENTS OF A LARGE, PuO_2 -FUELED LMFBR-TYPE CRITICAL ASSEMBLY. Bohn, E. M.; LeSage, L. G. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 842-3 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- CRITICAL ASSEMBLIES - physics measurements for ZPR-6 Assembly 7
LIQUID METAL FAST BREEDER REACTOR - physics measurements for plutonium oxide (PuO_2) fueled, (E/T)
- 62 26:3817 (ORNL-tr--2494) SHIELDING OF FAST BREEDER REACTORS. Albrecht, L.; Gegusch, M.; Schimmel, W. Translated by R. Gregg Mansfield (Oak Ridge National Lab., Tenn.), from Kernenergie; 13: No. 8, 237-42 (1970). 17p. Dep. NTIS.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - shielding of, materials and construction requirements for
- 63 26:3820 PROJECTED LMFBR SHIELDING NEEDS AND AEC/ RDT PROGRAMS. Lewellen, J. W.; Hemmig, P. B.; Hannum, W. H. (Atomic Energy Commission, Washington, D. C.). Trans. Amer. Nucl. Soc.; 14: No. 2, 934 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- LIQUID METAL FAST BREEDER REACTOR - shielding for, programs for development of
SHIELDING - development of fast reactor, programs for
- 64 26:3822 (TRG-Report--2094) SODIUM INSTRUMENTATION. (United Kingdom Atomic Energy Authority, Risley (England). Reactor Group). 1971. 27p. Dep. NTIS (U. S. Sales Only).
- PROTOTYPE FAST REACTOR; REACTORS, LIQUID METAL-COOLED - cooling system for, development of instrumentation for sodium
SODIUM - monitoring in sodium cooled reactor systems, instrumentation for
- 65 26:3823 EXPERIMENTAL STUDY ON MODELS OF THE OPERATING TEMPERATURE REGIMES OF THE FUEL ELEMENTS OF A BOR-60 REACTOR. Subbotin, V. I.; Zhukov, A. V.; Pashek, M.; (and others) (Inst. of Physics-Power Engineering, Obninsk, USSR). Heat Transfer - Sov. Res.; 3: No. 5, 15-26 (Sep-Oct 1971).
- BOR-60 REACTOR - fuel elements for, operating temperature fields of, (E)
- 66 26:3832 HYDROGEN ACTIVITY METER FOR LMFBRs. Vissers, D. R.; Holmes, J. T.; Nelson, P. A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 610-11 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

HYDROGEN - determination in liquid sodium, development of diffusion-type meter for
 LIQUID METAL FAST BREEDER REACTOR - coolant for, development of diffusion-type hydrogen
 meter for
 SODIUM - analysis of liquid, for hydrogen, development of diffusion-type meter for

- 67 26:3833 SODIUM SAMPLING AND ANALYSIS AT EBR-II. Olson, W. H. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 618-19(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - coolant for, sampling and analysis of sodium, (E)

- 68 26:3834 IMPROVEMENTS IN THORIA-YTTRIA CERAMIC ELECTROLYTES FOR OXYGEN METERS. Ross, W. A. (WADCO Corp., Richland, Wash.); Weber, E. T.; Grundy, B. R.; Berkey, E. Trans. Amer. Nucl. Soc.; 14: No. 2, 621-2(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant for, electrolyte tubes for oxygen
 determination in sodium

OXYGEN - determination in sodium, electrolyte tubes for meters for
 SODIUM - analysis for oxygen, electrolyte tubes for meters for
 THORIUM OXIDES ThO_2 ; YTTRIUM OXIDES - ThO_2 -- Y_2O_3 , fabrication of tubes of

- 69 26:3835 NITROGEN BEHAVIOR AS LMFBR REFUELING COVER GAS. Meacham, S. A.; Colburn, R. P. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 624-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant cover gas for, properties of nitrogen
 NITROGEN - properties for coolant cover gas in sodium cooled reactors

- 70 26:3837 TEMPERATURE DISTRIBUTION AND FLOW MIXING IN A 19-ROD SIMULATED LMFBR FUEL ASSEMBLY. Fontana, M. H.; MacPherson, R. E.; Gnadt, P. A.; Wantland, J. L. (Union Carbide Corp., Oak Ridge, Tenn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 719(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, temperature distribution and flow
 mixing in 19-rod

- 71 26:3838 7-ROD BUNDLE MIXING AND VELOCITY DISTRIBUTION EXPERIMENTS FOR LMFBR APPLICATION. Roidt, R. M. (Westinghouse Electric Corp., Pittsburgh); Markley, R. A.; Weiss, E. Trans. Amer. Nucl. Soc.; 14: No. 2, 719-21(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, coolant mixing and velocity
 distribution in 7-rod

- 72 26:3839 COMPARISON OF CALCULATED AND MEASURED FLOW RATES THROUGH AN INSTRUMENTED SUBASSEMBLY IN EBR-II. Gillette, J. L.; Gopalakrishnan, A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 721-3 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - fuel assemblies for, coolant flow rates in instrumented

- 73 26:3840 SIMULATION OF INTERCHANNEL COOLANT MIXING IN A SODIUM-COOLED REACTOR FUEL ASSEMBLY. Carelli, Mario D. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 728-9(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant flow in fuel assemblies of, simulation of
 interchannel mixing in

- 74 26:3841 ADVANTAGES OF PRIMARY SYSTEMS FLOW CONTROL DURING REACTOR SCRAM IN AN LMFBR. Metevia, William J.; Gilbertson, Jon C. (Combustion Engineering, Inc., Windsor, Conn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 753-4 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- LIQUID METAL FAST BREEDER REACTOR - coolant flow control systems for, response to emergency shutdown of
 LIQUID METAL FAST BREEDER REACTOR - shutdown of, response of coolant flow control system to emergency
- 75 26:3844 WATER MODELING OF LIQUID-METAL DIFFUSION COLD TRAPS. Bloom, G. R.; Lester, D. H. (WADCO Corp., Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 755-6 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- REACTORS, LIQUID METAL-COOLED - cooling systems for, effects of configuration on performance of diffusion cold traps for, (E)
 TRAPS - performance of liquid sodium diffusion cold, effects of configuration on, (E)
- 76 26:3845 PRELIMINARY RESULTS FROM HIGH-RESOLUTION GAMMA ANALYSIS OF EBR-II COVER GAS. Brunson, G. S. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 777-8 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- EXPERIMENTAL BREEDER REACTOR-II - core for, fission product detection in cover gas of
- 77 26:3846 MONTE CARLO CALCULATION OF SECONDARY SODIUM ACTIVATION ON THE PHENIX REACTOR. Devillers, C.; Nimal, J. C.; Vergnaud, T. (CEN, Fontenay Aux Roses, France). Trans. Amer. Nucl. Soc.; 14: No. 2, 936-7 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- PHENIX FAST REACTOR - coolant for, Monte Carlo calculation of activation of secondary liquid sodium
 SODIUM - activation of power reactor secondary coolant, Monte Carlo calculation of
- 78 26:3852 (GULF-GA-A--10803) GAS-COOLED FAST BREEDER REACTOR. Quarterly Progress Report, May 1, 1971--July 31, 1971. (Gulf General Atomic Co., San Diego, Calif.). Contract AT(04-3)-167. 44p. Dep. NTIS.
- CRITICAL ASSEMBLIES - physics measurements for ZPPR Assembly 2, (E/T)
 KRYPTON ISOTOPES Kr-85; KRYPTON ISOTOPES Kr-87; KRYPTON ISOTOPES Kr-88 - release from gas cooled reactor vented fuel rods, effects of temperature on
 REACTOR FUEL ELEMENTS - radiation effects testing of vented stainless steel clad plutonium oxide (PuO_2)-uranium oxide (UO_2), performance of fission product traps during
 REACTORS, FAST - core development for gas cooled, during May through July 1971
 REACTORS, FAST - fuel elements for gas cooled, irradiation testing of
 REACTORS, GAS-COOLED - core development for fast breeder, during May through July 1971
 REACTORS, GAS-COOLED - fuel elements for fast breeder, irradiation testing of
 XENON ISOTOPES Xe-133; XENON ISOTOPES Xe-135 - release from gas cooled reactor vented fuel rods, effects of temperature on
- 79 26:3857 RADIATION PROPERTIES OF SPENT PLUTONIUM FUELS. Bell, M. J. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 484 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- LIQUID METAL FAST BREEDER REACTOR - fuels for, radiation properties of spent, (T)
 REACTOR FUELS - radiation properties of spent plutonium containing, (T)
- 80 26:3874 INSTALLATION FOR CLADDING SURVEILLANCE OF FUEL ELEMENTS IN POWER REACTORS. Jacobi, S.; Tradowsky, K. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt., Atomtech.; 16: No. 10, 537-9 (Oct 1971). (In German).
- REACTOR FUEL ELEMENTS - cladding failures in, systems for detection of
 REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - fuel element failures in, system for detection of

- 81 26:3876 STARTUP NEUTRON DETECTORS FOR LMFBR APPLICATION. Roux, D. P. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 497(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - startup of, in-core neutron detectors for monitoring

- 82 26:3877 DESIGN AND PERFORMANCE OF HYDROGEN METER FOR DETECTING WATER-TO-SODIUM LEAKS IN LMFBR STEAM GENERATORS. McPheeters, C. C.; Vissers, D. R.; Slawicki, M. A.; Nelson, P. A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 614(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

BOILERS - leak detection in sodium heated, hydrogen meter for
LEAK DETECTORS - design of hydrogen meter, for sodium heated steam generators
LEAK DETECTORS - performance of hydrogen meter, for sodium heated steam generators
LIQUID METAL FAST BREEDER REACTOR - steam generators for, hydrogen meter for detection of leaks in

- 83 26:3878 DEVELOPMENT AND SODIUM TESTING OF AN ELECTROCHEMICAL HYDROGEN METER. Arbiter, W.; Fuhrman, N.; Holden, R. B. (Gulf Nuclear Fuels Corp., Elmsford, N. Y.). Trans. Amer. Nucl. Soc.; 14: No. 2, 620-1(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

BOILERS - leak detection in sodium heated, hydrogen meter for
LEAK DETECTORS - development of electrochemical hydrogen meter, for liquid metal heated steam generators
LEAK DETECTORS - testing in liquid sodium of electrochemical hydrogen meter, for liquid metal heated steam generators
LIQUID METAL FAST BREEDER REACTOR - steam generators for, hydrogen meter for detection of leaks in

- 84 26:3880 DESIGN OF INSTRUMENTATION CABLES FOR LMFBR APPLICATION. Schemmel, R. R.; Stringer, J. L.; Philipp, L. D. (WADCO Corp., Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 784(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

COAXIAL CABLES - design requirements for liquid metal cooled fast reactor instrumentation
LIQUID METAL FAST BREEDER REACTOR - instrumentation for, design requirements of insulated coaxial cables for

- 85 26:3891 EFFECTS OF OPTIMAL BLANKET SHAPE ON THE LMFBR FUEL CYCLE. Spitzer, Josef E.; O'Dell, R. Douglas (Univ. of New Mexico, Albuquerque). Trans. Amer. Nucl. Soc.; 14: No. 2, 493-4(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - fuel cycle for, effects of optimal blanket shape on

- 86 26:3895 (ANL-Trans--903) COMPILATION OF MOST RECENT EXPERIMENTAL RESULTS ON FUEL PIN FAILURE AND FUEL-SODIUM INTERACTION. Kessler, G. (Kernforschungszentrum, Karlsruhe (West Germany)). Translated for Argonne National Lab., Ill., from report PSB--389/1971. 48p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - accidents in, analysis of fuel meltdown, (E)
REACTOR FUEL ELEMENTS - meltdown of liquid sodium cooled, (E)
REACTOR SAFETY EXPERIMENTS - fuel meltdown accidents in TREAT, analysis of liquid sodium cooled, (E)

- 87 26:3900 (ORNL-TM--3554) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR JULY--AUGUST 1971. Cottrell, Wm. B. (Oak Ridge National Lab., Tenn.). Oct 1971. Contract W-7405-eng-26. 132p. Dep. NTIS.

FISSION PRODUCTS - release from gas cooled coated fuel particles, (E)
FISSION PRODUCTS - distribution in high temperature gas cooled reactor cooling system, (E)
GRAPHITE - corrosion of H327, by high temperature steam, (E)
HEATERS - development of electric, for liquid sodium test facility
INFORMATION CENTERS - operation of Nuclear Safety, during July and August 1971

IODINE - desorption from iron oxide (Fe_3O_4), effects of temperature on, (E)
 IRON OXIDES Fe_3O_4 - iodine desorption from, effects of temperature on, (E)
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, Failed Fuel Mockup facility for testing
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, heat transfer characteristics of bundle arranged rod type, (E/T)
 NOZZLES - stresses in reactor pressure vessel, effects of attachment configuration on, (E)
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 PIPES - design criteria for nuclear service, development program for
 PRESSURE VESSELS - fracture of heavy section steel, effects of flaw growth and propagation on, (E)
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 REACTOR FUEL ELEMENTS - heat transfer characteristics of liquid sodium cooled bundles of rod type, (E/T)
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 REACTORS, GAS-COOLED - fuel particles for high temperature, fission product release from coated, (E)
 REACTORS, GAS-COOLED - cooling systems of, fission product distribution in, (E)
 REACTORS, LIQUID METAL-COOLED - standards for, development of engineering
 REACTORS, WATER-COOLED - fuel elements for, effects of coolant loss accident conditions on failure of Zircaloy clad, (E)
 REACTORS, WATER-COOLED - standards for, development of engineering
 STANDARDS - development of reactor engineering, ORNL program for
 STEAM - corrosive effects on H327 graphite, (E)
 STEEL - mechanical properties of heavy section, effects of reactor environment on, (E)
 VALVES - design criteria for nuclear service, development program for
 ZIRCALOY - embrittlement of, effects of coolant loss accident conditions on, (E)

- 88 26:3911 COOLANT EXPULSION AND REENTRY FOLLOWING RAPID FISSION GAS RELEASE IN LMFBR SUBASSEMBLIES. Chawla, T. C.; van Erp, J. B.; Fiala, C.; Fauske, H. K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 730(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, coolant expulsion and reentry following failure of

- 89 26:3912 ANALYSIS OF PIN FAILURE IN A CLOSELY PACKED SEVEN-PIN CLUSTER AUTOCLAVE EXPERIMENT IN THE TREAT REACTOR. Agrawal, A. K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 731-2(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST TEST REACTOR - fuel pin failures in, fuel-coolant interactions following
 REACTOR FUEL ELEMENTS - failure of pin, fuel-coolant interactions following
 REACTOR SAFETY EXPERIMENTS - fuel pin failure testing in TREAT

- 90 26:3913 EFFECTS OF FUEL-COOLANT INTERACTIONS ON KINETICS DURING DISASSEMBLY OF AN LMFBR. Rowe, Steven; Mills, Joseph C.; Kastenber, William E. (Univ. of California, Los Angeles). Trans. Amer. Nucl. Soc.; 14: No. 2, 734-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - kinetics of, effects of fuel-coolant interactions on

- 91 26:3914 FUEL-COOLANT INTERACTIONS IN LMFBR CONTAINMENT ANALYSES. Marciniak, T. J. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 735(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - containment structures for, effects of fuel-coolant interactions on

- 92 26:3915 ALTERNATE PRINCIPLE LMFBR SHUTDOWN SYSTEMS. Noyes, R. C.; Gilbertson, J. C. (Combustion Engineering, Inc., Windsor, Conn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 735-6(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - shutdown systems for, design of redundant

- 93 26:3916 PARTIAL VOIDING AND FISSION PRODUCT GAS IN LMFBR DISASSEMBLY CALCULATIONS. Nicholson, R. B.; Jackson, J. F. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 737(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - core disassembly accidents in, effects of partial sodium voiding and fission gas retention on

- 94 26:3917 TWO-DIMENSIONAL SPATIAL EFFECTS IN FAST REACTORS DURING SODIUM VOIDING. Bezella, W. A. (Argonne National Lab., Ill.); Ott, K. O. Trans. Amer. Nucl. Soc.; 14: No. 2, 737-8(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - kinetics of, effects of sodium voiding on two-dimensional spatial

- 95 26:3918 CONDENSATION OF A LARGE SODIUM VAPOR BUBBLE AFTER A FAST REACTOR DISASSEMBLY ACCIDENT. Reynolds, A. B. (Univ. of Virginia, Charlottesville); Kennedy, M. F.; Honig, H. Trans. Amer. Nucl. Soc.; 14: No. 2, 738-9(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - core disassembly accidents in, condensation of sodium vapor bubble following

- 96 26:3919 SOME SAFETY ASPECTS OF FILM CONDENSATION DURING FUEL-FAILURE ACCIDENTS. Cronenberg, August W.; Fauske, Hans K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 739-40(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - fuel element failures in, safety aspects of sodium film condensation during

- 97 26:3920 CONDUCTIVE HEAT TRANSFER MODEL FOR POST-BURST ACCIDENT ANALYSES. Marciniak, T. J.; Chang, Y. W. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 740-1(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - fuel element failures in, post-burst conductive heat transfer model for

- 98 26:3921 SUB-PROMPT CRITICAL TRANSIENTS IN SEFOR. Noble, L. D. (General Electric Co., Sunnyvale, Calif.); Kussmaul, G.; Pflasterer, G. R. Trans. Amer. Nucl. Soc.; 14: No. 2, 741(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - transient testing of, analysis of sub-prompt critical

- 99 26:3922 PREDICTION AND MEASUREMENT OF REACTIVITY EFFECTS DUE TO THERMAL BOWING OF EBR-II SUBASSEMBLIES. Mohr, D.; Gopalakrishnan, A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 741-2(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - fuel assemblies for, reactivity effects from bowing of

- 100 26:3923 LIQUID FILM THICKNESSES AND MECHANISM FOR DRYOUT DURING LMFBR LOSS-OF-FLOW ACCIDENTS. Grolmes, M. A.; Fauske, H. K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 743-4(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant loss of flow in, liquid film thickness and dryout during

- 101 26:3924 COOLANT TRANSIENT SIMULATION IN LOOP CONCEPTS FOR THE FEFP PROGRAM. Thompson, D. H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 744-5 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

IN-PILE LOOPS - design for simulation of loss of sodium coolant flow accidents
LIQUID METAL FAST BREEDER REACTOR - coolant loss of flow in, in-pile loop concepts for simulation of

- 102 26:3925 EBR-II SYSTEM KINETICS DURING OFF-NORMAL PRIMARY FLOW CONDITIONS. Campise, A. V. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 745 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - coolant loss of flow in, fuel element temperatures during

- 103 26:3926 FUEL DYNAMICS TREAT SIMULATION TESTS ON LMFBR LOSS OF FLOW. Carter, J. C.; Dickerman, C. E.; Burns, T.; Stephenson, M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 745-6 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant loss accidents in, analysis of fuel dynamics during, (E)
LIQUID METAL FAST BREEDER REACTOR - fuel dynamics for, effects of coolant loss accidents on, (E)

- 104 26:3927 EXPERIMENTAL STUDY OF COOLANT CROSSFLOW AND SUBCHANNEL FLOW BLOCKAGE IN A SIMULATED LMFBR SUBASSEMBLY. van Erp, J. B.; Chawla, T. C. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 746-7 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant crossflow and subchannel flow blockage in, analysis of fuel bundle thermodynamics during, (E)
LIQUID METAL FAST BREEDER REACTOR - fuel bundle thermodynamics in, effects of coolant crossflow and subchannel flow blockage on, (E)

- 105 26:3928 LOCAL FLOW BLOCKAGE EFFECTS ON LMFBR CLADDING. Zoubek, John; Graham, John (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 747-8 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant flow blockage in, analysis of fuel pin failure during, (E)
LIQUID METAL FAST BREEDER REACTOR - fuel pin failures in, effects of coolant flow blockage on, (E)
REACTOR FUEL ELEMENTS - failure of pin, effects of liquid metal coolant flow blockage on, (E)

- 106 26:3929 HYDRODYNAMIC CHARACTERISTICS OF A WAKE BEHIND A FUEL ASSEMBLY LOCAL FLOW BLOCKAGE. Bishop, A. A.; Graham, John; Zoubek, J. A. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 748-9 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

LIQUID METAL FAST BREEDER REACTOR - coolant flow blockage in, analysis of fuel bundle hydrodynamics during
LIQUID METAL FAST BREEDER REACTOR - fuel bundle hydrodynamics in, effects of coolant flow blockage on

- 107 26:3944 (DOCKET-50231--102) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change No. 8. (Division of Reactor Licensing (AEC), Washington, D. C.).

12 Nov 1971. 22p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - personnel for, responsibilities of operation
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operation of, administrative controls for

- 108 26:3945 (DOCKET-50231--103) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change No. 9. (Division of Reactor Licensing (AEC), Washington, D. C.). 12 Nov 1971. 19p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - testing requirements before transient testing of Core 2, revised technical specifications for

- 109 26:3947 (EURFNR--950) PHYSICS INVESTIGATIONS OF SODIUM-COOLED FAST REACTORS: SNEAK ASSEMBLY 2. Helm, F.; Jourdan, G.; Pilate, S.; Reichal, H. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Angewandte Reaktorphysik). Jun 1971. 136p. (KFK--1399). Dep. NTIS (U. S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.

CRITICAL ASSEMBLIES - physics measurements SNEAK Assembly 2, effects of core configuration on, (E/T)

REACTORS, FAST - physics measurements for liquid sodium cooled, effects of core configuration on, (E/T)

REACTORS, LIQUID METAL-COOLED - physics measurements for fast breeder, effects of core configuration on, (E/T)

- 110 26:3954 MEASURED NEUTRON SPECTRA IN A NUMBER OF URANIUM- AND PLUTONIUM-FUELED REACTOR ASSEMBLIES. Yule, T. J.; Bennett, E. F. (Argonne National Lab., Ill.). Nucl. Sci. Eng.; 46: No. 2, 236-43(Nov 1971).

CRITICAL ASSEMBLIES - neutron spectra in ZPR-6 Assembly 6A and ZPR-9 Assemblies 25 and 26, measurement of fast and intermediate
NEUTRONS, FAST; NEUTRONS, INTERMEDIATE - spectra in uranium fueled and plutonium fueled fast critical assemblies

- 111 26:3955 RESPONSE OF THE FFTF EX-VESSEL DETECTORS TO LARGE ^{252}Cf SOURCES. Buhl, A. R.; Childs, R. L. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 14: No. 2, 513(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CALIFORNIUM ISOTOPES Cf-252 - uses in Fast Test Reactor low level neutron flux monitoring
FAST TEST REACTOR - neutron flux monitors for, performance of ex-vessel
NEUTRONS, FAST - flux monitoring of, use of Californium-252 for low level

- 112 26:3956 CONTINUOUS ON-LINE MONITORING OF OXYGEN, CARBON, AND HYDROGEN IN SODIUM. Singer, B. (Atomic Energy Commission, Washington, D. C.); Burris, L. Trans. Amer. Nucl. Soc.; 14: No. 2, 608(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CARBON - determination in liquid sodium, status of continuous on-line
FAST TEST REACTOR - coolant for, status of continuous on-line monitoring of carbon, hydrogen, and oxygen in

HYDROGEN; OXYGEN - determination in liquid sodium, status of continuous on-line
SODIUM - analysis of liquid, for impurities, status of continuous on-line

- 113 26:3957 DESIGN AND PERFORMANCE OF AN OXYGEN-HYDROGEN METER MODULE FOR ON-LINE SODIUM ANALYSIS AT FFTF. Kolba, V. M.; Slawicki, M. A.; Filewicz, E. C.; Holmes, J. T. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 608-9(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST TEST REACTOR - coolant for, design and performance of oxygen--hydrogen meter module for on-line monitoring of

HYDROGEN; OXYGEN - determination in liquid sodium, design and performance of meter module for on-line

SODIUM - analysis of liquid, for oxygen and hydrogen impurities, design and performance of meter module for on-line

- 114 26:3958 DESIGN AND TESTING OF A STANDARD DEVICE FOR DETERMINING OXYGEN ACTIVITY IN SODIUM BY VANADIUM WIRE EQUILIBRATION. McKee, J. M.; Kolba, V. M.; Filewicz, E. C.; Holmes, J. T. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 609-10(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- FAST TEST REACTOR - coolant for, design and testing of standard device for monitoring oxygen by vanadium wire equilibration in
OXYGEN - determination in liquid sodium by vanadium wire equilibration, design and testing of standard device for
SODIUM - analysis of liquid, for oxygen by vanadium wire equilibration, design and testing of standard device for
- 115 26:3959 EVALUATION OF AN ON-LINE CARBON METER FOR USE IN LMFBR SODIUM. Luner, C.; Holmes, J.; Nelson, P. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 610(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- CARBON - determination in liquid sodium, evaluation of on-line meter for
FAST TEST REACTOR - coolant for, evaluation of on-line carbon meter for monitoring of
SODIUM - analysis of liquid, for carbon, evaluation of on-line meter for
- 116 26:3960 FFTF SODIUM IMPURITY MONITORING AND ANALYSIS: FUNCTION, DEVELOPMENT EFFORTS, AND FACILITY DESIGN. Kolowith, R.; McCown, J. J. (WADCO Corp., Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 619-20(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- FAST FLUX TEST FACILITY - cooling system for, sodium impurity monitoring and analysis in
- 117 26:3961 FABRICATION OF AN INSTRUMENTED FUEL ASSEMBLY FOR VIBRATION TESTING. Myers, R. L.; Blahnik, D.; Sawtelle, G. R. (WADCO Corp., Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 633-4(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- FAST TEST REACTOR - fuel assembly for, fabrication of instrumented prototype
- 118 26:3963 SUBCRITICAL EXPERIMENTS WITH MIXED-OXIDE FUELS OF PLUTONIUM AND URANIUM IN POISONED LATTICES. Brown, C. L.; Davenport, L. C.; Clayton, E. D. (Battelle-Northwest, Richland, Wash.). Trans. Amer. Nucl. Soc.; 14: No. 2, 675 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- CRITICALITY - measurements on plutonium oxide (PuO_2)--uranium oxide (UO_2) fuels in poisoned water lattices
FAST TEST REACTOR - fuel pins for, criticality safety of poisoned water lattices of
- 119 26:3966 SIMULATION OF AN FTR SUBASSEMBLY USING A SMALL TEST BUNDLE. Marr, W. W.; Barts, E. W. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 723 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- FAST TEST REACTOR - fuel subassemblies for, mockup testing of
- 120 26:3971 MEASUREMENT OF NOBLE GAS TRANSPORT DYNAMICS IN SEFOR SODIUM. Regimbal, J. J. (General Electric Co., Sunnyvale, Calif.); Kunkel, W. P.; Gilbert, R. S. Trans. Amer. Nucl. Soc.; 14: No. 2, 773-4(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.
- ARGON ISOTOPES Ar-41; NEON ISOTOPES Ne-23 - transport in liquid sodium coolant for experimental reactor
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - coolant for, analysis of neon-23 and argon-41 transport in liquid sodium
- 121 26:3972 IRRADIATION ENVIRONMENT IN EBR-II: A COMPARISON OF MEASUREMENTS AND CALCULATIONS. Sehgal, B. R. (Argonne National Lab., Ill.); Kirn, F. S. Trans. Amer.

Nucl. Soc.; 14: No. 2, 778-9(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - physics measurements for
EXPERIMENTAL BREEDER REACTOR-II - core for, fission distributions for, (E/T)

- 122 26:3973 INVERSE KINETICS TECHNIQUES APPLIED TO ZPPR FAST CRITICAL ASSEMBLIES. Goin, R. W.; Carpenter, S. G.; Gasidlo, J. M.; Kaiser, R. E. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 794-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CRITICAL ASSEMBLIES - physics measurements for ZPPR, inverse kinetics techniques for

- 123 26:3974 ANL-FFTF CRITICAL EXPERIMENTS PROGRAM: A GENERAL EVALUATION BASED ON ENDF/B-1 DATA. Travelli, A.; Ulrich, A. J.; Beitel, J. C. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 811-12(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST TEST REACTOR - physics measurements for, (E/T)

- 124 26:3975 COMPARISON OF MODIFIED ENDF/B-2 AND ABN CROSS-SECTION SETS IN THE ANALYSIS OF FTR CRITICAL EXPERIMENTS. Ramchandran, S.; Koudelka, A. J.; Madden, G. H. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 812-13(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST TEST REACTOR - physics measurements for, comparison of cross section sets for, (E/T)

- 125 26:3976 INTEGRAL ALPHA MEASUREMENTS FOR U AND Pu ISOTOPES IN EBR-II. Dudey, N. D.; Heinrich, R. R.; Williams, J. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 816-17(Oct 1971). From Joint meeting of the American Nuclear Society, Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - physics measurements for, plutonium and uranium isotopes capture-to-fission ratios

PLUTONIUM ISOTOPES Pu-239; PLUTONIUM ISOTOPES Pu-240; PLUTONIUM ISOTOPES Pu-242 - neutron capture-to-fission ratio for, measurement of liquid sodium cooled research reactor
URANIUM ISOTOPES U-233; URANIUM ISOTOPES U-235; URANIUM ISOTOPES U-238
capture-to-fission ratio for, measurement of liquid sodium cooled research reactor

- 126 26:3977 SENSITIVITIES OF CAPTURE-TO-FISSION RATIOS OF U AND Pu ISOTOPES IN EBR-II CORE AND BLANKET REGIONS FOR VARIOUS LOADINGS. Meneghetti, D.; Rempert, R. H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 817-18(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - core of, effects of loading configurations on capture-to-fission ratios of plutonium and uranium isotopes in
PLUTONIUM ISOTOPES Pu-239; PLUTONIUM ISOTOPES Pu-240; PLUTONIUM ISOTOPES Pu-242 - neutron capture-to-fission ratio for, effects of reactor core loading configuration on
URANIUM ISOTOPES U-233; URANIUM ISOTOPES U-235; URANIUM ISOTOPES U-238
capture-to-fission ratio for, effects of reactor core loading configuration on

- 127 26:3978 EFFECTS OF SODIUM VOIDING ON REACTOR PARAMETERS IN THE DEMONSTRATION REACTOR. Kaiser, R. E.; Forrester, R. J.; Norris, R. J.; Hess, A. L. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 843(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CRITICAL ASSEMBLIES - physics measurements for ZPPR Assembly 2, effects of sodium voiding on

- 128 26:3979 SODIUM VOIDING STUDIES IN THE DEMONSTRATION PLANT BENCHMARK CRITICAL (ZPPR-2). Olson, Arne P.; Young, Jay C.; Vosburgh, Robert O. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 843-4(Oct 1971). From Joint meeting of the

American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CRITICAL ASSEMBLIES - reactivity coefficients of ZPPR Assembly 2, effects of sodium voiding on

- 129 26:3980 ANALYSIS OF THE SMALL-SAMPLE DOPPLER MEASUREMENTS IN ZPR-6 ASSEMBLIES 6 AND 7. Kier, P. H.; Salvatores, M.; Robinson, W. R.; Dance, K. D. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 844-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CRITICAL ASSEMBLIES - Doppler reactivity of ZPR-6 Assemblies 6 and 7, effects of sample composition on, (E/T)

- 130 26:3981 ANALYSES OF SMALL-SAMPLE DOPPLER EXPERIMENTS IN SUPPORT OF THE FTR DESIGN. Ramchandran, S.; Koudelka, A. J.; Madden, G. H. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 14: No. 2, 845-6 (Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CRITICAL ASSEMBLIES - Doppler reactivity of ZPR-3 Assembly 48, (E/T)
FAST TEST REACTOR - Doppler reactivity of, (E/T)

- 131 26:3982 CALCULATED SIZE EFFECTS FOR REACTIVITY SAMPLES IN ZPPR. Collins, P. J.; Palmer, R. G. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 14: No. 2, 846-7(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

CRITICAL ASSEMBLIES - reactivity coefficients of ZPPR Assembly 2, effects of sample compositions and configurations on

- 132 26:3983 MEASUREMENTS AND CALCULATIONS OF A SIMULATED HIGH WORTH CONTROL ROD FOR EBR-II. Stenstrom, D. G. (Argonne National Lab., Ill.); Vosburgh, R. O.; Gasidlo, J. M.; Keeney, W. P.; Meneghetti, D. Trans. Amer. Nucl. Soc.; 14: No. 2, 847-8(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

EXPERIMENTAL BREEDER REACTOR-II - control rods of, reactivity worth of boron
REACTOR CONTROL ELEMENTS - reactivity worth of boron rod type, for liquid sodium cooled fast reactors

- 133 26:3988 EXPERIENCE WITH SUBCRITICALITY DETERMINATION BY NOISE TECHNIQUES IN THE FTR ENGINEERING-MOCKUP CRITICAL EXPERIMENT PROGRAM. Cohn, Charles E. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 14: No. 2, 861(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST TEST REACTOR - criticality of, use of noise analysis method for measurement of

- 134 26:3991 SHIELDING THE FAST FLUX TEST FACILITY (FFTF). Rathbun, J. L. (Westinghouse Electric Corp., Madison, Pa.); Gerstl, S. A. W.; Fox, P. F.; Bunch, W. L.; Boulette, E. T. Trans. Amer. Nucl. Soc.; 14: No. 2, 934-5(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST FLUX TEST FACILITY - shielding for, design requirements for
SHIELDING - design requirements for liquid metal cooled fast test reactor

- 135 26:3992 FFTF RELATED STUDIES IN THE ORNL-LMFBR SHIELDING PROGRAM. Mynatt, F. R. (Oak Ridge National Lab., Tenn.); Clifford, C. E.; Muckenthaler, F. J.; (and others). Trans. Amer. Nucl. Soc.; 14: No. 2, 935-6(Oct 1971). From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971). See CONF-711009.

FAST FLUX TEST FACILITY; LIQUID METAL FAST BREEDER REACTOR - shielding for, development program for
SHIELDING - development program for liquid metal cooled fast reactor

- 136 26:4082 THERMAL PROTECTION DEVICE FOR A NUCLEAR REACTOR VESSEL. Schaller, Karl; Costes, Didier; Delisle, Jean-Paul; Gallo, Sabino (to Commissariat a l'Energie Atomique). French Patent 2,044,625. 26 Feb 1971. Filed 10 Mar 1969. (In French).

REACTORS, LIQUID METAL-COOLED - core vessel for sodium cooled, thermal protection device for

- 137 26:4227 DETERMINATION OF THE FAST FISSION YIELD OF ^{141}Pr USING NEUTRON ACTIVATION ANALYSIS. Pillay, K. K. S.; Meyer, R. J.; Larsen, R. P. (Argonne National Lab., Ill.). J. Radioanal. Chem.; 3: No. 3-4, 233-43(Sep 1969).

EXPERIMENTAL BREEDER REACTOR - fuel for, determination of fast fission yield of praseodymium-141 in Mark III

FISSION PRODUCTS; PLUTONIUM - separation from praseodymium by ion exchange and precipitation

PRASEODYMIUM - separation from plutonium, uranium, and other fission products by ion exchange and precipitation

PRASEODYMIUM ISOTOPES Pr-141 - determination of fission product, by neutron activation

URANIUM - separation from praseodymium by ion exchange and precipitation

- 138 26:4265 BROMINE BEHAVIOUR IN FAST REACTORS. Clough, W. S. (Atomic Energy Research Establishment, Harwell, Eng.). J. Nucl. Energy; 25: No. 9, 417-23(Sep 1971).

BROMINE - chemical states of fission product, from fast reactor

REACTORS, FAST - bromine release from fuel cans in sodium-cooled

- 139 26:4267 BEHAVIOUR OF BARIUM AND STRONTIUM FISSION PRODUCTS IN LIQUID SODIUM. Clough, W. S. (Atomic Energy Research Establishment, Harwell, Eng.). J. Nucl. Energy; 25: No. 9, 437-43(Sep 1971).

BARIUM - reactions of fission product, in liquid sodium of fast reactors

BARIUM - reactions of liquid, with fission product barium and strontium

FISSION PRODUCTS - transport in liquid sodium in fast reactors

REACTORS, FAST - fission product transport in sodium-cooled

STRONTIUM - reactions of fission product, in liquid sodium of fast reactors

- 140 26:4416 PRE-OPERATIONAL ENVIRONMENTAL MONITORING PROGRAMS AT NUCLEAR FACILITIES. Golden, John Christopher Jr. Ann Arbor, Mich.; Univ. of Michigan (1971). 111p. University Microfilms Order No. 71-15,574. Thesis.

ENVIRONMENT - radiation monitoring of nuclear facility, program for preoperational FERMI FAST BREEDER REACTOR - operation of, effects on radioisotope content in Lake Erie, (E)

LAKE MICHIGAN - radioisotope monitoring in environment of, during 1969 and 1970

NUCLEAR POWER PLANTS - effects on environmental radioactivity in Lake Michigan, measurement and prediction of

RADIATION MONITORING - program for environmental, prior to operation of nuclear power plants near Lake Michigan

RADIOISOTOPES - content in environment of Lake Michigan, during 1969 and 1970

RADIOISOTOPES - content in Lake Erie environment, effects of Enrico Fermi Atomic Power Plant on, (E)

- 141 26:4449 EXPERIMENTAL SODIUM LOOP ML-2. de la Torre Cabezas, Manuel (Junta de Energie Nuclear, Madrid). Energ. Nucl. (Madrid); 15: No. 70, 92-101(Mar-Apr 1971). (In Spanish).

LOOPS - development of experimental ML-2, for sodium-cooled fast breeder reactor

OXYGEN - content in fast breeder reactor coolant loop sodium, equipment for measuring

REACTORS, BREEDER - coolant loop for sodium-cooled fast, development of experimental ML-2

SODIUM - oxygen content of in-line, in fast breeder reactor coolant loop, equipment for measuring

- 142 26:4906 (ORNL-TM--3540) FUELS AND MATERIALS DEVELOPMENT PROGRAM QUARTERLY PROGRESS REPORT FOR PERIOD ENDING JUNE 30, 1971. Patriarca, P. (Oak Ridge National Lab., Tenn.). Sep 1971. Contract W-7405-eng-26. 146p. Dep. NTIS.

ADVANCED TEST REACTOR - materials development for
 HASTELLOY X - corrosion by steam containing chlorides and oxygen
 HEAT-RESISTING ALLOYS AND METALS - radiation effects on mechanical properties of, in-pile
 HEAT SOURCES - materials for radioisotope, development of
 INCOLOY 800 - corrosion by steam containing chlorides and oxygen
 LIQUID METAL FAST BREEDER REACTOR - materials development for
 MATERIALS TESTING, NONDESTRUCTIVE - methods for LMFBR materials, development of
 ORNL HIGH-FLUX ISOTOPE REACTOR - materials development for
 REACTOR CONTROL ELEMENTS - materials development for fast breeder systems
 REACTOR FUELS - development of oxide, for fast breeder systems
 SODIUM - corrosive effects on reactor alloys and metals under LMFBR conditions
 STAINLESS STEEL - development and testing of Types 304 and 316, for fuel cladding
 STEAM - corrosive effects on nickel-base superalloys, relations with chloride and oxygen content
 T-111 (TANTALUM ALLOY) - properties for use in fabrication of liquid metal radioisotope power cycles
 TUNGSTEN ALLOYS AND SYSTEMS - fabrication for use in high-temperature space power systems
 URANIUM NITRIDES - development of high-temperature clad fuels of
 WELDING - development of methods for LMFBR components

- 143   26:4923 (ORNL--4770, pp 82-9) WELDING DEVELOPMENT. (Oak Ridge National Lab., Tenn.). Sep 1971. In Metals and Ceramics Division annual progress report for period ending June 30, 1971.

LIQUID METAL FAST BREEDER REACTOR - components of, effects of welding on steel
 STAINLESS STEEL - mechanical properties of Type 308, effects of welding on
 STEEL - mechanical properties of ASTM, A213T22, and A387D, for LMFBR components
 STEEL - weldability of ASTM, A213T22, and A387D, for LMFBR components

- 144   26:4980 (ORNL--4770, pp 69-77) CLADDING AND STRUCTURAL MATERIALS. (Oak Ridge National Lab., Tenn.). Sep 1971. In Metals and Ceramics Division annual progress report for period ending June 30, 1971.

LIQUID METAL FAST BREEDER REACTOR - fuel cladding development for
 NEUTRONS - effects on microstructure and properties of Types 304 and 316 stainless steel, relations with titanium additions
 STAINLESS STEEL - radiation effects on microstructure and properties of titanium-modified Types 304 and 316, neutron
 TITANIUM - effects of additions of, on radiation stability of Types 304 and 316 stainless steel

- 145   26:4989 (NUMEC--3524-75) FABRICATION OF LOW DENSITY PuO_2 -- UO_2 LMFBR FUEL PELLETS. (Nuclear Materials and Equipment Corp., Leechburg, Pa. Plutonium Lab.). Jun 1970. Contract AT(30-1)-3524. 56p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuels for, fabrication of low-density plutonium dioxide--uranium dioxide
 PLUTONIUM OXIDES PuO_2 ; URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of low-density LMFBR fuel pellets of, evaluation of methods for

- 146   26:5032 (ORNL--4770, pp 140-8) GAS-COOLED REACTOR PROGRAM. (Oak Ridge National Lab., Tenn.). Sep 1971. In Metals and Ceramics Division annual progress report for period ending June 30, 1971.

CARBON - radiation effects on fuel particle coatings of pyrolytic, neutron
 LIQUID METAL FAST BREEDER REACTOR - fuels for, development and testing of
 NEUTRONS - effects on deformation of pyrolytic carbon fuel particle coating
 NEUTRONS, FAST; NEUTRONS, THERMAL - effects on clad oxide fuel elements
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on clad fuel elements of, fast and thermal neutron
 REACTOR FUEL ELEMENTS - radiation effects on coated-particle, in-pile
 REACTORS, GAS-COOLED - fuels for high temperature, development of resin-derived coated particle
 REACTORS, GAS-COOLED - fuels for, development and testing of
 THORIUM CARBIDES - ThC -- UC , fabrication of coated particle fuels of, development of methods for
 THORIUM OXIDES ThO_2 - ThO_2 -- UO_2 , fabrication of coated-particle fuels of, development of methods for
 URANIUM CARBIDES - ThC -- UC , fabrication of coated particle fuels of, development of methods for

URANIUM OXIDES UO_2 - ThO_2 -- UO_2 , fabrication of coated-particle fuels of, development of methods for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on clad fuel elements of, fast and thermal neutron

- 147 26:6230 (ANL--7872) REACTOR DEVELOPMENT PROGRAM PROGRESS REPORT, OCTOBER 1971. (Argonne National Lab., Ill.). 23 Nov 1971. Contract W-31-109-eng-38. 179p. Dep. NTIS.
- CRITICAL ASSEMBLIES - operation of ZPR-6, ZPR-9, and ZPPR-2 during October 1971
 CRITICAL ASSEMBLIES - reactivity measurements for ZPR-6 and ZPPR-2
 CRITICAL ASSEMBLIES - control elements of ZPR-6 and ZPR-9, reactivity worth measurements for
 EXPERIMENTAL BREEDER REACTOR-II - operations during October 1971
 LIQUID METAL FAST BREEDER REACTOR - development during October 1971
 LIQUID METAL FAST BREEDER REACTOR - instrumentation for
 LIQUID METAL FAST BREEDER REACTOR - fuels for, reprocessing methods for
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for performance of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)
 LIQUID METAL FAST BREEDER REACTOR - safety aspects of
 LIQUID METAL FAST BREEDER REACTOR - coolant for, analysis of impurities and corrosive properties of liquid sodium
 REACTOR CONTROL ELEMENTS - reactivity worth of liquid metal cooled fast reactor
 REACTOR FUEL ELEMENTS - reprocessing methods for metal clad ceramic
 REACTOR FUEL ELEMENTS - performance of liquid sodium cooled stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) rod type
 SODIUM - corrosive properties of liquid
- 148 26:6242 TECHNOLOGY OF IN-PILE CREEP MEASUREMENTS. Cybulskis, Peter (Battelle Memorial Inst., Columbus, Ohio). Reactor Technol.; 14: No. 4, 315-34(Winter 1971-1972).
- LIQUID METAL FAST BREEDER REACTOR - fuels for, test equipment for neutron radiation effects on creep in, (E)
 LIQUID METAL FAST BREEDER REACTOR - structural materials for, test equipment for neutron radiation effects on creep in, (E)
 NEUTRONS - effects on creep in reactor fuels and structural materials
 REACTOR FUEL ELEMENTS - radiation effects on creep in ceramic, neutron
 REACTORS, WATER-COOLED - fuels for, test equipment for neutron radiation effects on creep in, (E)
 REACTORS, WATER-COOLED - structural materials for, test equipment for neutron radiation effects on creep in, (E)
- 149 26:6251 SUBCRITICALITY MEASUREMENT IN AN LMFBR. Ackermann, Norbert J. Jr. Nucl. Safety; 12: No. 6, 583-90 (Nov-Dec 1971).
- LIQUID METAL FAST BREEDER REACTOR - subcriticality measurements in, comparison of methods for
 SNR REACTOR - criticality measurement of subcritical liquid metal cooled, comparison of methods for
- 150 26:6257 (CONF-710335--1) REPORT OF THE SPECIALISTS' MEETING ON "OPERATIONAL SAFETY OF SODIUM CIRCUITS" HELD AT RISLEY, UNITED KINGDOM, MARCH 17--19, 1971. Eickhoff, K. G. (United Kingdom Atomic Energy Authority, Risley (England). Reactor Group). [1971]. 9p. Dep. NTIS (U. S. Sales Only). From International Working Group on Fast Reactors; Risley, England (17 Mar 1971).
- HEAT TRANSFER SYSTEMS - operation of liquid sodium test loops, safety aspects for
 REACTORS, LIQUID METAL-COOLED - cooling system for, safety aspects for operation of liquid sodium
- 151 26:6260 IMPROVEMENTS IN AND RELATING TO AN ELECTROMAGNETIC DEVICE FOR FLOWRATE MEASUREMENT. Deslisle, Jean-Paul; Lacroix, Andre; Lions, Noel (to Commissariat a l'Energie Atomique). British Patent 1,251,872. 3 Nov 1971. Priority date 23 Jul 1968, France.
- FLOWMETERS - design characteristics of electromagnetic, for liquid sodium cooled reactors
 REACTORS, LIQUID METAL-COOLED - flowmeters for liquid sodium cooled, design characteristics of electromagnetic

- 152 26:6266 TURBULENT-FLOW HEAT TRANSFER FOR IN-LINE FLOW THROUGH UNBAFFLED ROD BUNDLES: MOLECULAR CONDUCTION ONLY. Dwyer, O. E.; Berry, H. C. (Brookhaven National Lab., Upton, N. Y.). Nucl. Sci. Eng.; 46: No. 2, 284-303(Nov 1971).
- REACTOR FUEL ELEMENTS - heat transfer from liquid metal cooled rod bundles, molecular conduction turbulent flow, (T)
REACTORS, LIQUID METAL-COOLED - fuel rod bundles for, molecular conduction turbulent flow heat transfer from, (T)
- 153 26:6267 EXPERIMENTAL STUDIES ON RADIOACTIVE CONTAMINATION OF THE PRIMARY CIRCUITS OF REACTORS. Chantoin, P.; Dadillon, J.; Saroul, J. (CEN de Cadarache, Saint-Paul-les-Durance, France). Bull. Inform. Sci. Tech. (Paris); No. 158, 35-43(Apr 1971). (In French).
- FISSION PRODUCTS - release from cooling systems of liquid metal cooled and high temperature gas cooled reactors, contamination from deposition following
RADIOACTIVE CONTAMINATION - mechanisms of, following release and deposition of fission products from liquid metal cooled and high temperature gas cooled reactors
REACTORS, GAS-COOLED - cooling systems for high temperature, release and deposition of fission products in, (E)
REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, release and deposition of fission products in, (E)
- 154 26:6271 (ANL/EBR--34) USER'S MANUAL FOR BEMOD-I. EBR-II Project. Ford, C. C.; Koenig, J. F. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Nov 1970. Contract W-31-109-eng-38. 119p. Dep. NTIS.
- COMPUTER PROGRAMS - BEMOD-I, for performance modeling of fast reactor sodium-bonded fuel elements, FORTRAN-IV for IBM 360/75
REACTOR FUEL ELEMENTS - performance of sodium-bonded fast, BEMOD-I code for modeling of
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, BEMOD-I code for modeling of performance of
- 155 26:6275 (RT/MET--(71)2) EXPERIMENTS ON FISSION PRODUCTS AND URANIUM RELEASE UP TO 1100°C FROM UO_2 IN SODIUM MEDIUM. Adami, M.; Segre, G. J.; De Vita, R.; Lepscky, C.; Suraci, F.; Tomassi, N. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 1971. 26p. Dep. NTIS (U. S. Sales Only).
- FISSION PRODUCTS - release from liquid sodium and uranium oxide (UO_2) interaction, effects of temperature on, (E)
REACTORS, FAST - fission product release in liquid sodium cooled, effects of temperature on liquid sodium and uranium oxide (UO_2) interaction, (E)
REACTORS, LIQUID METAL-COOLED - fission product release in fast, effects of temperature on liquid sodium and uranium oxide (UO_2) interaction, (E)
SODIUM - reactions with uranium oxide (UO_2), fission product release from, (E)
URANIUM OXIDES UO_2 - reactions with liquid sodium, fission product release from, (E)
- 156 26:6276 (TID--25839) FUEL ROD DESIGN BASES. Anderson, C. A. Jr.; Markley, R. A.; Patterson, J. F. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). [1970]. Contract AT(30-1)-4200. 19p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, statistical analysis of steady state and transient design limits for
REACTOR FUEL ELEMENTS - design limits for liquid metal cooled fast reactor, statistical analysis of steady state and transient
- 157 26:6280 POWER-PULSE MONITORING PROBE. Boyd, Leo R. (to United States Atomic Energy Commission). U. S. Patent 3,597,612. 3 Aug 1971. Filed 27 Jan 1969.
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - power excursions in sodium cooled, pulse monitoring probe for
- 158 26:6286 REFUELING APPARATUS AND METHOD FOR FAST REACTORS. Germer, John H. (to United States Atomic Energy Commission). U. S. Patent 3,600,277. 17 Aug 1971. Filed 2 Oct 1968.

REACTOR LOADING MACHINES - design for sodium cooled fast reactors
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - loading sodium cooled, method and apparatus for

- 159 26:6287 240 MW(e) PROTOTYPE FAST REACTOR AT DOUNREAY. PART 2. Steam Heat. Eng.; 41: No. 480, 38-42(Nov 1971).

PROTOTYPE FAST REACTOR - power conversion system for, description of
 PROTOTYPE FAST REACTOR - instrumentation for, description of safety

- 160 26:6290 COOLING ARRANGEMENTS. Blackburn, Michael; Wheeler, David John (to English Electric Co. Ltd.). British Patent 1,250,009. 20 Oct 1971. Filed 20 Jun 1968.

REACTOR FUEL ELEMENTS - transfer container for irradiated, design of sodium cooled
 REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, transfer container for spent

- 161 26:6292 REVIEW OF REACTIVITY METERS FOR OPERATIONAL FAST BREEDER REACTORS. Lehto, Wayne K.; Cohn, C. E. (Argonne National Lab., Ill.). Reactor Technol.; 14: No. 4, 345-53(Winter 1971-1972).

LIQUID METAL FAST BREEDER REACTOR - instrumentation for, review of reactivity monitoring
 RADIATION DETECTORS - performance of reactivity monitoring, for liquid metal cooled fast reactors

- 162 26:6297 EQUIPMENT FOR REPLACING FUEL ELEMENTS IN A NUCLEAR REACTOR. Mueller, Arno (to Gesellschaft fuer Kernforschung mbH). German Patent 1,297,778. 19 Jun 1969. Filed 16 Jan 1965. (In German).

REACTOR LOADING MACHINES - design characteristics for liquid metal cooled reactor
 REACTORS, LIQUID METAL-COOLED - loading machine for

- 163 26:6299 EQUIPMENT FOR MONITORING THE RADIOACTIVITY OF COOLANT IN A NUCLEAR REACTOR. Hackney, Stanley (to United Kingdom Atomic Energy Authority). U. S. Patent 3,612,860. 12 Oct 1971. Priority date 14 Aug 1967, Great Britain.

REACTOR FUEL ELEMENTS - failure of liquid metal cooled, coolant sampling and radiation monitoring equipment for detection of
 REACTORS, FAST - fuel elements for liquid metal cooled, coolant sampling and radiation monitoring equipment for detection of failed
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast, coolant sampling and radiation monitoring equipment for detection of failed

- 164 26:6304 (CEA-CONF--1867) PARASEISMIC PRECAUTIONS FOR NUCLEAR REACTORS. Costes, D. (Commissariat a l'Energie Atomique, Saclay (France). Centre d'Etudes Nucleaires). 1971. 24p. (In French). (CONF-710903--5). Dep. NTIS (U. S. Sales Only). From 1. international conference on structural mechanics in reactor technology; Berlin, Germany (20 Sep 1971).

PHENIX FAST REACTOR; REACTORS, POWER - siting of, seismological requirements for

- 165 26:6306 (NP--19118) REPORT ON THE CALCULATION OF SEVERAL EXPERIMENTS ON SIMULATION OF SEVERE HYPOTHETICAL ACCIDENTS OF FAST REACTORS ON THE TREAT REACTOR. Kuczera, B.; Struwe, D. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Aug 1971. 25p. (In German). Dep. NTIS (U. S. Sales Only).

REACTOR SAFETY EXPERIMENTS - accidents in TREAT, analysis of mechanical conversion factors during coolant expulsion, (E/T)
 REACTORS, FAST - accidents in liquid sodium cooled, analysis of mechanical conversion factors during coolant expulsion, (E/T)
 REACTORS, FAST - coolant expulsion accidents in, analysis of mechanical conversion factors during, (E/T)
 REACTORS, LIQUID METAL-COOLED - accidents in fast, analysis of mechanical conversion factors during coolant expulsion, (E/T)
 REACTORS, LIQUID METAL-COOLED - coolant expulsion accidents in, analysis of mechanical

conversion factors during, (E/T)

- 166 26:6317 ROLE OF WATER MODEL EXPERIMENTS IN FAST REACTOR SAFETY STUDIES. Hall, R. S. (Berkeley Nuclear Labs., Eng.). J. Brit. Nucl. Energy Soc.; 10: No. 4, 299-307 (Oct 1971).
- REACTORS, FAST - safety aspects of liquid sodium cooled, water model experiments for
 REACTORS, LIQUID METAL-COOLED - safety aspects of fast, water model experiments for
- 167 26:6321 CHARACTERISTICS OF AN INSTALLATION EMPLOYING A CO₂ GAS TURBINE CYCLE RUNNING AT OVER-CRITICAL PRESSURE. Pfost, H.; Seitz, K. (Firma Kraftwerk Union, Erlangen, Ger.). Brennst.-Waerme-Kraft; 23: No. 9, 400-5 (Sep 1971). (In German).
- ELECTRIC GENERATORS - operating characteristics for over-critical pressure carbon dioxide gas turbine, for liquid sodium cooled fast reactors
 REACTORS, FAST - power conversion systems for liquid sodium cooled, over-critical pressure operating characteristics of carbon dioxide gas turbine
 REACTORS, LIQUID METAL-COOLED - power conversion systems for fast, over-critical pressure operating characteristics of carbon dioxide gas turbine
 REACTORS, POWER - power conversion systems for liquid sodium cooled fast, over-critical pressure operating characteristics of carbon dioxide gas turbine
- 168 26:6322 NUCLEAR POWER PLANT INCORPORATING LOW-PRESSURE CO₂-GAS TURBINE-CYCLE. Chermanne, J. (Belgonucleaire, Brussels). Brennst.-Waerme-Kraft; 23: No. 9, 406-12 (Sep 1971). (In German).
- ELECTRIC GENERATORS - operating characteristics of low pressure carbon dioxide gas turbine, for liquid sodium cooled fast reactors
 REACTORS, FAST - power conversion systems for liquid sodium cooled, operating characteristics of low pressure carbon dioxide gas turbine
 REACTORS, LIQUID METAL-COOLED - power conversion systems for fast, operating characteristics of low pressure carbon dioxide gas turbine
 REACTORS, POWER - power conversion systems for liquid sodium cooled fast, operating characteristics of low pressure carbon dioxide gas turbine
- 169 26:6324 IS THE CO₂ GAS TURBINE CYCLE ON ECONOMICAL PROPOSITION FOR SODIUM COOLED FAST BREEDER REACTORS. Watzel, G. V. P. (Rheinisch-Westfaelische Elektrizitaetswerk AG, Essen). Brennst.-Waerme-Kraft; 23: No. 9, 395-400 (Sep 1971). (In German).
- ELECTRIC GENERATORS - economic aspects of carbon dioxide gas turbine, for liquid sodium cooled fast reactors
 REACTORS, FAST - power conversion systems for liquid sodium cooled, economic aspects of carbon dioxide gas turbine
 REACTORS, LIQUID METAL-COOLED - power conversion systems for fast, economic aspects of carbon dioxide gas turbine
 REACTORS, POWER - power conversion systems for liquid sodium cooled fast, economic aspects of carbon dioxide gas turbine
- 170 26:6325 (ANL--6732) CRITICAL STUDIES OF A 440-LITER FAST-REACTOR CORE FUELED WITH URANIUM ENRICHED TO 17 PERCENT (ZPR-3 ASSEMBLY 41). Hess, A. L.; Gasidlo, J. M.; Long, J. K.; Amundson, P. I.; Keeney, W. P. (Argonne National Lab., Ill.). Jun 1971. Contract W-31-109-eng-38. 77p. Dep. NTIS.
- CRITICAL ASSEMBLIES - criticality of ZPR-3 Assembly 41, effects of 440 liter 17 percent enriched uranium core configuration on, (E)
 REACTORS, FAST - criticality of, effects of 440 liter 17 percent enriched uranium core configuration on, (E)
- 171 26:6326 (ANL/EBR--40) EVALUATION OF THE EBR-II REACTOR-BUILDING ISOLATION SYSTEM. EBR-II Project. Haroldsen, R. O. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Jun 1971. Contract W-31-109-eng-38. 56p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - isolation system for, design parameters and performance of

- 172 26:6327 (DOCKET-50231--104) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change No. 7. (Division of Reactor Licensing (AEC), Washington, D. C.). 2 Dec 1971. 2p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - cooling system for, liquid sodium flow rate limits for pump-around loop of
- 173 26:6329 (HEDL-TME--71-146) 217-PIN WIRE-WRAPPED BUNDLE COOLANT MIXING TEST. Collingham, R. E.; Thorne, W. L.; McCormack, J. D. (Hanford Engineering Development Lab., Richland, Wash.). Nov 1971. Contract AT(45-1)-2170. 227p. Dep. NTIS.
- FAST TEST REACTOR - fuel assemblies for, coolant mixing in wire wrapped 217 pin, (E)
 REACTOR FUEL ELEMENTS - coolant mixing in wire wrapped 217 pin assemblies, model testing for liquid sodium, (E)
- 174 26:6332 (ORNL-TM--3446) PREIRRADIATION DATA FOR ORNL SERIES II AND B AND W OXIDE FUEL TESTS IN EBR-II. Olsen, A. R. (Oak Ridge National Lab., Tenn.). Nov 1971. Contract W-7405-eng-26. 163p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, fabrication requirements and quality assurance testing of plutonium oxide (PuO_2)--uranium oxide (UO_2) pin type test
 REACTOR FUEL ELEMENTS - fabrication requirements for plutonium oxide (PuO_2)--uranium oxide (UO_2) pin type
 REACTOR FUEL ELEMENTS - quality assurance testing for plutonium oxide (PuO_2)--uranium oxide (UO_2) pin type
 REACTOR FUEL ELEMENTS - performance limits for plutonium oxide (PuO_2)--uranium oxide (UO_2) pin type
- 175 26:6337 (RT/ING--(71)12) EXPERIMENTAL DETERMINATION OF PRESSURE DROP OF PEC REACTOR FUEL ELEMENT. Grazzini, R.; Tirelli, D. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 1971. 38p. Dep. NTIS (U. S. Sales Only).
- PEC FAST TEST REACTOR - fuel element for, coolant flow pressure drop across, (E)
 REACTOR FUEL ELEMENTS - pressure drop across bundle arranged pin type, simulation of liquid sodium, (E)
- 176 26:8451 FUEL ELEMENT EXPERIENCE IN NUCLEAR POWER REACTORS. Simnad, Massoud T. AEC Monograph. New York; Gordon and Breach, Science Publishers, Inc. (1971). 630p. \$19.00. (TID--25870).
- REACTOR FUEL ELEMENTS - book: Fuel Element Experience in Nuclear Power Reactors
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, GAS-COOLED; REACTORS, LIQUID METAL-COOLED
 fuel elements for, review of design and performance of
 REACTORS, MOLTEN-SALT - fuels for, review of design and performance of
 REACTORS, ORGANIC-COOLED; REACTORS, POWER - fuel elements for, review of design and performance of
 REACTORS, THERMAL - fuels for, review of design and performance of
- 177 26:8458 (DOCKET-50016--134) ENRICO FERMI ATOMIC POWER PLANT. Report for July 1971. (Power Reactor Development Co., Detroit, Mich.). 7 Dec 1971. 12p. (PRDC-EF--95). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during July 1971
- 178 26:8459 (DOCKET-50016--135) ENRICO FERMI ATOMIC POWER PLANT. Report for August 1971. (Power Reactor Development Co., Detroit, Mich.). 14 Dec 1971. 15p. (PRDC-EF--96). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during August 1971
- 179 26:8485 (EFAPP--200-1) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1 OPERATING EXPERIENCE THROUGH 200 MWT. (Atomic Power Development Associates, Inc., Detroit, Mich.). Aug 1971. 298p.

FERMI FAST BREEDER REACTOR - design parameters for
 FERMI FAST BREEDER REACTOR - physics measurements for
 FERMI FAST BREEDER REACTOR - operations of, review of

- 180 26:8493 (DOCKET-50016--136) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications, Change No. 16. (Division of Reactor Licensing (AEC), Washington, D. C.). 29 Nov 1971. 4p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - fuel elements for, remote handling requirements for fully irradiated Core A

- 181 26:8542 (ANL/EBR--42) CORE-LOADING DIAGRAMS FOR EBR-II RUNS 39 THROUGH 50 (DECEMBER 1969 THROUGH MID-AUGUST 1971). Case, J. C. (comp.) (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Sep 1971. Contract W-31-109-eng-38. 85p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - cores for, loading diagrams for runs 39 through 50

- 182 26:8549 (AI-AEC--13013) LMFBR PHYSICS PROGRAMS. Quarterly Technical Progress Report, July--September 1971. (Atomics International, Canoga Park, Calif.). 15 Nov 1971. Contracts AT(04-3)-701; AT(04-3)-824. 40p. Dep. NTIS.

CRITICAL ASSEMBLIES - physics parameters of fast benchmark cores in, (E/T)
 CRITICAL ASSEMBLIES - neutron importance distribution in ECEL, axial fission, (E/T)
 CRITICAL ASSEMBLIES - Doppler coefficient measurements in ZPPR-2, (E)
 LIQUID METAL FAST BREEDER REACTOR - physics measurement programs during July to September 1971
 NEUTRON CROSS SECTIONS - calculations for fast assemblies, evaluation of ENDF/B data for, (E/T)
 PLUTONIUM ISOTOPES Pu-239 - neutron cross sections for, evaluation of ENDF/B data for, (E/T)
 REACTOR CONTROL ELEMENTS - reactivity worths of fast, effects of absorber and structural materials on, (E/T)
 REACTORS, FAST - physics calculations for, development of VIM computer program for
 URANIUM ISOTOPES U-235 - neutron cross sections for, evaluation of ENDF/B data for, (E/T)

- 183 26:8554 (ORNL-TM--3639) FAST REACTOR SHIELDING MONTHLY PROGRESS REPORT FOR OCTOBER 1971, 189A NO. 10028, ACTIVITY NO. 40 01 61. Mynatt, F. R.; Clifford, C. E.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). 24 Nov 1971. 40p. Dep. NTIS.

FAST TEST REACTOR - neutron flux in cavity area of, effects of stored fuel elements on, (T)
 FAST TEST REACTOR - shielding for, effects of stored fuel on requirements for cavity, (T)
 FAST TEST REACTOR - shielding for, effects of neutron streaming in fission gas plenum on, (T)
 LIQUID METAL FAST BREEDER REACTOR - coolant for, neutron shielding effects of sodium, (E/T)
 NEUTRONS - attenuation in liquid sodium, (E/T)
 SODIUM - neutron attenuation in, (E/T)

- 184 26:8561 (BMI--1918) PROGRESS ON DEVELOPMENT OF FUELS AND TECHNOLOGY FOR ADVANCED REACTORS DURING JULY 1970 THROUGH JUNE 1971. Annual Report, Task 6 (Part 1) and Task 7. Final Report, Task 6 (Part 2). Keller, Donald L. (Battelle Columbus Labs., Ohio). Jul 1971. Contract W-7405-eng-92. 324p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel pins for, fabrication and irradiation testing of plutonium nitride--uranium nitride
 LIQUID METAL FAST BREEDER REACTOR - fuels for, development of, plutonium nitride--uranium nitride, (E)
 LIQUID METAL FAST BREEDER REACTOR - fuels for, high temperature irradiation performance of, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - fuels for, effects of fission process on creep of, (E/T)
 NITROGEN - diffusion in plutonium nitride--uranium nitride fuels, self, (E)
 PLUTONIUM NITRIDES - PuN--UN, volatilization of, effects of oxygen impurity on, (E)
 PLUTONIUM NITRIDES - PuN--UN, self-diffusion of nitrogen in, (E)
 PLUTONIUM NITRIDES - PuN--UN, radiation testing of fuels of

PLUTONIUM NITRIDES - PuN--UN, radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, creep of, effects of fission process on, (E/T)
 REACTOR FUEL ELEMENTS - development of sodium-bonded stainless steel clad plutonium nitride--uranium nitride, (E)
 REACTOR FUEL ELEMENTS - performance of stainless steel clad plutonium nitride--uranium nitride, during transient irradiation, (E/T)
 REACTOR FUEL ELEMENTS - swelling of, mathematical model of mechanics of
 REACTOR FUELS - radiation effects on performance of fast, at high temperature, (E/T)
 REACTOR FUELS - creep of fast, effects of fission process on, (E/T)
 REACTOR SAFETY EXPERIMENTS - fuel element irradiation in TREAT, analysis of stainless steel clad plutonium nitride--uranium nitride, (E/T)
 URANIUM CARBIDES - radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 URANIUM CARBIDES - fission gas diffusion and bubble growth in, (E/T)
 URANIUM NITRIDES - PuN--UN, volatilization of, effects of oxygen impurity on, (E)
 URANIUM NITRIDES - PuN--UN, self-diffusion of nitrogen in, (E)
 URANIUM NITRIDES - PuN--UN, radiation testing of fuels of
 URANIUM NITRIDES - radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 URANIUM NITRIDES - PuN--UN, radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 URANIUM OXIDES - stoichiometry control of, (E)
 URANIUM OXIDES UO₂ - radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 URANIUM OXIDES UO₂ - fission gas diffusion and bubble growth in, (E/T)
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on high temperature swelling, fission gas release, and microstructure of, (E/T)
 URANIUM OXIDES UO₂ - crystal structure of, morphology and migration of lenticular voids in, (E/T)
 URANIUM OXIDES UO₂ - PuO₂--UO₂, creep of, effects of fission process on, (E/T)
 URANIUM OXIDES UO₂ - creep of, effects of fission process on, (E/T)

- 185 26:8567 INSTALLATION FOR THE MONITORING OF CLADDING ON POWER REACTOR FUEL ELEMENTS. Jacobi, S.; Tradowsky, K. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt., Atomtech.; 16: No. 10, 537-8(Oct 1971). (In German).

REACTOR FUEL ELEMENTS - cladding of, methods for detection of leaks in
 REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, methods for detection of leaks in cladding of
 REACTORS, WATER-COOLED - fuel elements for, method for detection of leaks in cladding of

- 186 26:8571 (AI-AEC--13014) LMFBR SAFETY PROGRAMS. Quarterly Technical Progress Report, July--September 1971. (Atoms International, Canoga Park, Calif.). 15 Nov 1971. Contract AT(04-3)-701. 35p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - safety programs during July to September 1971
 LIQUID METAL FAST BREEDER REACTOR - coolant pipe rupture in, characteristics of sodium jet discharge from, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - coolant combustion accidents in, release and transport of aerosols and energy from sodium, (E/T)
 SODIUM - combustion in liquid metal cooled reactor accidents, release and transport of aerosols and energy from, (E/T)
 URANIUM OXIDES UO₂ - vaporization in sodium cooled reactor accidents, production and behavior of aerosols from, (E/T)

- 187 26:8573 (ANL--7743) EBR-II: A STATUS REPORT. Smith, R. R.; Loewenstein, W. B.; Walter, C. M. (Argonne National Lab., Ill.). Jul 1971. Contract W-31-109-eng-38. 203p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - safety of, effects of 62.5 MW(t) core on, (E/T)
 EXPERIMENTAL BREEDER REACTOR-II - operation of, effects of 62.5 MW(t) core on, (E/T)

- 188 26:8580 (HEDL-TME--71-18(Rev.1)) FEASIBILITY OF LITHIUM ADDITION AS AN ALTERNATE SHUTDOWN METHOD FOR THE FAST TEST REACTOR. Schively, D. P. (Hanford Engineering Development Lab., Richland, Wash.). Feb 1971. Contract AT(45-1)-2170. 45p. Dep. NTIS.

FAST TEST REACTOR - shutdown system for, use of lithium addition in emergency, (T)

- 189 26:8601 (NP--19086) EXPERIMENTAL STUDIES OF EFFECTIVE CROSS SECTIONS, REACTION RATE DISTRIBUTIONS AND NEUTRON SPECTRA IN SOME FAST REACTOR CORES. Andersson, Tor Leif (Aktiebolaget Atomenergi, Studsvik (Sweden)). 1971. 18p. Dep. NTIS (U. S. Sales Only). Thesis. Submitted to Lund Univ., Sweden.
- CRITICAL ASSEMBLIES - physics parameters of fast reactor core mockups in FRO, (E)
FISSION PRODUCTS - reactivity worths in fast reactor core mockups, (E)
NEUTRONS - reaction rate ratios and distributions in fast reactor core mockups, (E)
NEUTRONS - spectra measurements in fast reactor core mockups, resonance
NEUTRONS - capture to fission ratios for plutonium-239 and uranium-235 in fast reactor core mockups, (E)
PLUTONIUM ISOTOPES Pu-239; URANIUM ISOTOPES U-235 - neutron capture to fission ratio in fast reactor spectra, integral measurement of
- 190 26:8605 IMPROVEMENTS IN OR RELATING TO TRANSDUCERS. Hughes, Gordon (to United Kingdom Atomic Energy Authority). British Patent 1,252,257. 3 Nov. 1971. Filed 28 Dec 1967.
- REACTORS, LIQUID METAL-COOLED - cooling systems of, transducer for detection of flow blockages in
SODIUM - flow of liquid, transducers for detection of blockage of
TRANSDUCERS - design for detection of coolant flow blockages in liquid metal cooled reactors
- 191 26:8996 (ANL--7841) CHEMICAL ENGINEERING DIVISION FUEL CYCLE TECHNOLOGY QUARTERLY REPORT, APRIL, MAY, JUNE 1971. Webster, D. S.; Jonke, A. A.; Bernstein, G. J.; Levitz, N. M.; Pierce, R. D.; Steindler, M. J.; Vogel, R. C. (Argonne National Lab., Ill.). Aug 1971. Contract W-31-109-eng-38. 62p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, development of liquid-metal head-end processes for
LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, performance of centrifugal contactor in
PLUTONIUM - determination in oxide fuels, x-ray fluorescence methods for in-line
PLUTONIUM - purification in Purex-type processing of LMFBR fuels, performance of centrifugal contactor in
PLUTONIUM - reduction and reoxidation in Purex Process, electrolytic
PLUTONIUM NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, crystallization studies on nitric acid solutions of
PLUTONIUM NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, denitration to oxide, continuous fluidized-bed process for
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , analysis for plutonium, in-line x-ray fluorescence methods for
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_3 , preparation by continuous fluidized-bed denitration of plutonium nitrate--uranyl nitrate systems
PUREX PROCESS - plutonium reduction and purification in, development of methods for
REACTOR FUEL ELEMENTS - decladding of steel-clad oxide, liquid-metal head-end processes for
REACTOR FUELS - reprocessing of oxide, performance of centrifugal contactor in Purex-type process for
THORIUM OXIDES ThO_2 ; URANIUM OXIDES UO_2 - ThO_2 -- UO_2 , analysis of, in-line x-ray fluorescence methods for
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , analysis for plutonium, in-line x-ray fluorescence methods for
URANIUM OXIDES UO_3 - PuO_2 -- UO_3 , preparation by continuous fluidized-bed denitration of plutonium nitrate--uranyl nitrate systems
URANYL NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, crystallization studies on nitric acid solutions of
URANYL NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, denitration to oxide, continuous fluidized-bed process for
VESSELS - performance of centrifugal contactor, in Purex Process
ZINC - solvent properties for steel fuel cladding
- 192 26:8998 (BNWL-B--116) DISSOLUTION OF BURNED ZPPR FUEL IN NITRIC ACID SOLUTIONS. (Battelle Pacific Northwest Labs., Richland, Wash.). Nov 1971. Contract AT(45-1)-1830. 18p. Dep. NTIS.
- CRITICAL ASSEMBLIES - fuel reprocessing for ZPPR, plutonium recovery in
PLUTONIUM - separation from burned ZPPR fuel, optimum conditions for
PLUTONIUM OXIDES PuO_2 - solubility in nitric acid solutions

REACTOR FUELS - dissolution of burned molybdenum--plutonium--uranium, in nitric acid solutions

- 193 26:9018 (ORNL-TM--3644) PROPOSED PROGRAM FOR HOT-CELL TESTS OF HEAD-END PROCESSES FOR LMFBR FUELS. Vaughen, V. C. A.; Goode, J. H. (Oak Ridge National Lab., Tenn.). Dec 1971. Contract W-7405-eng-26. 69p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, proposed hot-cell tests of head-end processes for
 REACTOR FUEL ELEMENTS - reprocessing of oxide, proposed hot-cell tests of head-end processes for
- 194 26:9020 (TID--25815) ELEMENTS OF GAS-COOLED REACTOR FUEL REPROCESSING. Wymer, R. G. (Oak Ridge National Lab., Tenn.). [1971]. 39p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, review on components of
 REACTOR FUELS - reprocessing of HTGR and liquid-metal fast breeder, review on components of
 REACTORS, GAS-COOLED - fuel reprocessing for, review on components of
- 195 26:9072 (AI-AEC-Memo--12869) SODIUM-TO-AIR COOLING SYSTEM. Newburn, F. A. (Atomics International, Canoga Park, Calif.). 27 Jun 1969. 39p. Dep. NTIS.
- FAST FLUX TEST FACILITY - heat exchangers for cooling, review on design and performance of sodium-to-air
 HEAT EXCHANGERS - design and performance of sodium-to-air, for cooling Fast Flux Test Facility, review on
- 196 26:9096 TESTING OF SODIUM PUMP. Fakkell, R. H. (NERATOOM, N. V., The Hague); Vroom, J. P.; Mendte, K.; Lameris, H. J. Nucl. Eng. Int.; 16: No. 187, 1006-8 (Dec 1971).
- PUMPS (LIQUID METAL) - performance and testing of large sodium, for SNR fast breeder reactor
 SNR REACTOR - pump for, performance and testing of large sodium
- 197 26:9097 SODIUM PUMPS FOR PHENIX. Hispano-Suiza. Nucl. Eng. Int.; 16: No. 187, 1002-4 (Dec 1971).
- PHENIX FAST REACTOR - pumps for, fabrication and testing of sodium
 PUMPS (LIQUID METAL) - fabrication and testing of sodium, for Phenix fast reactor
- 198 26:9101 ULTRASOUND TRANSDUCER OPERATING INSIDE A LIQUID AT HIGH TEMPERATURE. Marini, Jean; Roule, Maurice (to Commissariat a l'Energie Atomique). French Patent 2,063,324. 9 Jul 1971. Filed 12 Sep 1969. (In French).
- REACTORS, LIQUID METAL-COOLED - cooling system for, description of transducer for operation in liquid metal
 TRANSDUCERS - description of ultrasonic, for use in high-temperature liquid metals
- 199 26:9133 DYNAMICS OF THE BOILING PROCESS IN SODIUM-COOLED REACTORS. Peppler, W.; Schlechtendahl, E. G.; Schnultheiss, G. F. (Kernforschungszentrum, Karlsruhe, Ger.). pp B8.5.1-11 of Heat Transfer 1970. Vol. VI. /Grigull, Ulrich (ed.). Amsterdam; Elsevier Publishing Co. (1970). (In German). From 4. international heat transfer conference; Paris--Versailles, France (31 Aug 1970).
- BOILING - research on sodium, in fast reactor coolant channels, (E/T)
 REACTORS, FAST - boiling in sodium-cooled, research on, (E/T)
 SODIUM - boiling in fast reactor coolant channels, research on, (E/T)
- 200 26:9198 HOT FUEL EXAMINATION FACILITY (HFEF). Swanson, N. J.; Mingesz, D. P.; White, J. R. (Argonne National Lab., Idaho Falls, Idaho). pp 3-13 of Proceedings of the 19th Conference on Remote Systems Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.;

American Nuclear Society, Inc. (1971). From 19. conference on remote systems technology; Miami Beach, Fla. (17 Oct 1971).

HOT CELLS - design and construction of Hot Fuel Examination Facility

LIQUID METAL FAST BREEDER REACTOR - fuel elements from, design and construction of HFEF cells for examining spent

- 201 26:9212 CONCEPTUAL DESIGN OF FFTF INTERIM EXAMINATION/MAINTENANCE CELL. Harbison, S. G. (Aerojet-General Corp., Fullerton, Calif.); Graham, D. W.; Garrett, E. E. pp 153-9 of Proceedings of the 19th Conference on Remote Systems Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society, Inc. (1971). From 19. conference on remote systems technology; Miami Beach, Fla. (17 Oct 1971).

FAST FLUX TEST FACILITY - hot cell for, design of Interim Examination/Maintenance

HOT CELLS - design of Interim Examination/Maintenance, for inspection and maintenance of FFTF core components

REACTOR FUEL ELEMENTS - inspection of irradiated, design of Interim Examination/Maintenance hot cell at FFTF for

- 202 26:9428 DIFFERENTIAL CROSS SECTION FOR THE REACTIVE SCATTERING OF DEUTERIUM ATOMS BY HYDROGEN MOLECULES: CROSS SECTIONS FOR THE EXCITATION OF Na(3^2P) BY COLLISIONS WITH INTERNALLY EXCITED MOLECULAR HYDROGEN, DEUTERIUM, AND NITROGEN. Krause, Herbert Francis. Pittsburgh; Univ. of Pittsburgh (1970). 258p. University Microfilms Order No. 71-17,689. Thesis.

EXTENSOMETERS - design for diametrical measurement of irradiated and unirradiated nuclear fuels

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, profilometer for diametrical measurement of

- 203 26:9441 ULTRASONIC THERMOMETRY FOR NUCLEAR REACTORS. Lynnworth, L. C.; Carnevale, E. H.; McDonough, M. S.; Fam, S. S. (Panametrics, Inc., Waltham, Mass.). IEEE (Inst. Elec. Electron. Eng.), Trans. Nucl. Sci.; NS-16: No. 1, 184-7(Feb 1969). From 15. nuclear science symposium; Montreal, Canada (23 Oct 1968).

LIQUID METAL FAST BREEDER REACTOR; REACTORS, ROCKET - temperature measurement in, development of ultrasonic thermometers for

THERMOMETERS - development of ultrasonic, for LMFBR and nuclear rockets

- 204 26:9816 (BMI--1914) PROGRESS ON LMFBR CLADDING, STRUCTURAL, AND COMPONENT MATERIALS STUDIES DURING JULY 1970 THROUGH JUNE 1971. Annual Report, Task 32. Final Report, Task 14. Keller, Donald L. (Battelle Columbus Labs., Ohio). Jul 1971. Contract W-7405-eng-92. 183p. Dep. NTIS.

CHROMIUM ALLOYS AND SYSTEMS - Co-base--Cr--Fe, radiation effects on ductility and tensile properties of UMo-50, in-pile

CHROMIUM ALLOYS AND SYSTEMS - Cr--Mo--steel, creep rupture of low-carbon, effects of stress and temperature on

COBALT ALLOYS AND SYSTEMS - Co-base--Cr--Fe, radiation effects on ductility and tensile properties of UMo-50, in-pile

HAYNES STELLITE NO. 25 - radiation effects on ductility and tensile properties of, in-pile

INCOLOY 800 - fatigue at 1000 to 1400°F, low-cycle

IRON ALLOYS AND SYSTEMS - Co-base--Cr--Fe, radiation effects on ductility and tensile properties of UMo-50, in-pile

LIQUID-METAL-FUEL REACTOR - materials for, development and testing of

MOLYBDENUM ALLOYS AND SYSTEMS - Cr--Mo--steel, creep rupture of low-carbon, effects of stress and temperature on

NEUTRONS, FAST - flux measurement in ETR, isotopic monitor cross sections for

NEUTRONS, FAST - effects on properties of LMFBR materials, summary of research on

NICKEL; NICKEL 200 - radiation effects on ductility and tensile properties of, in-pile

STAINLESS STEEL - fatigue at 1000 to 1400°F, low-cycle

STAINLESS STEEL - radiation effects on microstructure of Types 347, 348, and Tenelon, in-pile

STAINLESS STEEL - radiation effects on ductility and tensile properties of Types 347, 348, and Tenelon, in-pile

STAINLESS STEEL - mechanical properties of shock-strengthened Type 316

STEEL - Cr--Mo--steel, creep rupture of low-carbon, effects of stress and temperature on

- 205 26:11230 (DOCKET-50016--138) ENRICO FERMI ATOMIC POWER PLANT. Report for September 1971. (Power Reactor Development Co., Detroit, Mich.). 29 Dec 1971. 14p. (PRDC-EF--97). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during September 1971
- 206 26:11260 (DOCKET-50016--137) ENRICO FERMI ATOMIC POWER PLANT. Preliminary Report of Possible Sodium System Leak. (Power Reactor Development Co., Detroit, Mich.). 20 Dec 1971. 8p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - cooling system for, analysis of possible sodium leak from
- 207 26:11329 (RCN--137) FAST REACTOR PROGRAMME. Second Quarter 1970, Progress Report. Hoekstra, E. K. (comp.) (Reactor Centrum Nederland, Petten). Jan 1971. 82p. (EURFNR--900). Dep. NTIS (U. S. Sales Only).
- CRITICAL ASSEMBLIES - operation of STEK, during April to June 1970
 NEUTRONS, FAST - effects on mechanical properties of Type 304 and Type 316 stainless steels, (E)
 REACTOR FUEL ELEMENTS - performance of fast, effects of steady-state and transient irradiations on, (E)
 REACTOR FUEL ELEMENTS - temperature of fast, effects of local loss of cooling on, (E)
 REACTOR FUEL ELEMENTS - cladding for fast, fast neutron radiation effects on mechanical properties of, (E)
 REACTORS, FAST - development during April to June 1970
 REACTORS, FAST - physics of, effects of fission products on, (E/T)
 REACTORS, FAST - fuel elements for sodium cooled, development of, (E)
 REACTORS, FAST - cores for sodium cooled, heat transfer and hydraulic characteristics of, (E/T)
 REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, development of, (E)
 REACTORS, LIQUID METAL-COOLED - cores for sodium cooled, heat transfer and hydraulic characteristics of, (E/T)
 STAINLESS STEEL - radiation effects on mechanical properties of Type 304 and Type 316, fast neutron, (E)
- 208 26:11330 (RCN--154) FAST REACTOR PROGRAMME. Fourth Quarter 1970 Progress Report. Hoekstra, E. K. (comp.) (Reactor Centrum Nederland, Petten). Jul 1971. 75p. Dep. NTIS (U. S. Sales Only).
- CRITICAL ASSEMBLIES - operation of STEK, during October through December 1970
 REACTOR FUEL ELEMENTS - development of fast, during October through December 1970
 REACTOR FUEL ELEMENTS - cladding for fast, corrosion and radiation effects on
 REACTOR FUEL ELEMENTS - performance of fast, under steady-state and transient irradiation
 REACTORS, FAST - development of sodium cooled, during October through December 1970
 REACTORS, FAST - accidents in sodium cooled, behavior of aerosols following
 REACTORS, FAST - physics of sodium cooled, effects of fission products on
 REACTORS, FAST - core for sodium cooled, heat transfer and hydraulic characteristics of
 REACTORS, LIQUID METAL-COOLED - development of sodium cooled, during October through December 1970
 REACTORS, LIQUID METAL-COOLED - accidents in sodium cooled, behavior of aerosols following
 REACTORS, LIQUID METAL-COOLED - physics of sodium cooled, effects of fission products on
 REACTORS, LIQUID METAL-COOLED - core for sodium cooled, heat transfer and hydraulic characteristics of
- 209 26:11333 BREEDER REACTORS: POWER FOR THE FUTURE. Hammond, Allen L. Science; 174: No. 4011, 807-10(19 Nov 1971).
- LIQUID METAL FAST BREEDER REACTOR - development in U.S.
 REACTORS, BREEDER - development in U.S. of gas cooled fast
 REACTORS, FAST - development in U.S. of gas cooled breeder
 REACTORS, GAS-COOLED - development in U.S. of fast breeder
- 210 26:11337 EVALUATION OF SPACE-ENERGY FACTORIZATION FOR TWO-DIMENSIONAL DIFFUSION THEORY PROBLEMS IN THE LIQUID METAL FAST BREEDER REACTOR. Stacey, Weston M. Jr. (Argonne National Lab., Ill.). Nucl. Sci. Eng.; 46: No. 3, 421-5(Dec 1971).
- LIQUID METAL FAST BREEDER REACTOR - neutron diffusion equation for, space-energy factorization scheme for solution of energy-dependent

- 211 26:11346 (HEDL-TME--71-147) EXAMINATION OF LMEC'S T-1D TEST FILTERS FOR PARTICULATE IMPURITIES. Greenhalgh, W. O. (Hanford Engineering Development Lab., Richland, Wash.). 30 Sep 1971. Contract AT(45-1)-2170. 19p. Dep. NTIS.
- FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - coolant for, particulate impurities identification on filters for sodium, (E)
- 212 26:11348 INTERCHANNEL MIXING IN WIRE WRAPPED LIQUID METAL FAST REACTOR FUEL ASSEMBLIES. Todreas, Neil E. (Massachusetts Inst. of Tech., Cambridge); Turi, James A. Nucl. Technol.; 13: No. 1, 36-52(Jan 1972).
- LIQUID FLOW - mixing rates in fuel channel, effects of wire wrapped spacers on interchannel
- LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, interchannel coolant mixing rates in wire wrapped, (E/T)
- REACTOR FUEL ELEMENTS - spacers for sodium cooled assemblies of, interchannel coolant mixing rate effects of wire wrapped, (E/T)
- 213 26:11351 IMPROVEMENTS IN OR RELATING TO LIQUID METAL CIRCUITS. Thorley, Alan William; Raine, Alan Cumberland (to United Kingdom Atomic Energy Authority). British Patent 1,254,731. 24 Nov 1971. Filed 5 Sep 1968.
- BELLOWS - design of metal, for control of liquid metal flow
- LIQUID FLOW - control of liquid metal, metal bellows for
- METALS - flow of liquid, metal bellows for control of
- REACTORS, LIQUID METAL-COOLED - coolant dumping in, metal bellows for control of
- 214 26:11353 PRIMARY NUCLEAR PUMPS. Hoppel, R. W. (Byron Jackson Pumps Inc., Los Angeles). Nucl. Eng. Int.; 16: No. 187, 1004-5(Dec 1971).
- PUMPS - design for reactor primary cooling systems
- REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - coolant pumps for, design of
- 215 26:11358 POST-SHUTDOWN SURGES IN COVER GAS ACTIVITY IN EXPERIMENTAL BREEDER REACTOR II (EBR-II). Brunson, G. S.; Fryer, R. M.; Strain, R. V. (Argonne National Lab., Idaho Falls, Idaho). Nucl. Technol.; 13: No. 1, 6-19(Jan 1972).
- EXPERIMENTAL BREEDER REACTOR-II - coolant cover gas in, effects of fuel element leaks on postshutdown activity of, (E/T)
- 216 26:11361 ACOUSTIC BOILING DETECTION IN REACTOR VESSELS. Anderson, T. T.; Grate, T. A. (Argonne National Lab., Ill.). IEEE (Inst. Elec. Electron. Eng.), Trans. Nucl. Sci.; NS-16: No. 1, 260-5(Feb 1969). From 15. nuclear science symposium; Montreal, Canada (23 Oct 1968).
- REACTORS, FAST - coolant boiling in liquid metal cooled, acoustic detection system for
- REACTORS, LIQUID METAL-COOLED - coolant boiling in fast, acoustic detection system for
- 217 26:11378 CONTAMINATION CONTROL OF SODIUM RELEASES FROM LIQUID-METAL-COOLED FAST BREEDER REACTORS. First, M. W. (Harvard Univ., Cambridge, Mass.). Nucl. Safety; 13: No. 1, 37-46(Jan-Feb 1972).
- RADIOACTIVE CONTAMINATION - control from sodium cooled reactor coolant releases, method for
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant releases from sodium cooled, methods for control of contamination from
- REACTORS, POWER - coolant releases from sodium cooled fast breeder, methods for control of contamination from
- SODIUM - releases of reactor coolants of liquid, methods for control of contamination from
- 218 26:11389 (DOCKET-50231--105) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Reflector Control Circuit Relay Malfunction. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 17 Dec 1971. 3p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - control system for, malfunction of relay for reflector

- 219 26:11390 (DOCKET-50231--106) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Modification of the Reactivity Predicting Equation for SEFOR Core II. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 17 Dec 1971. 5p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - reactivity for Core 2, revised prediction equation for

- 220 26:11391 (DOCKET-50231--107) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Tenth Quarterly Plant Operation Report, August 1--October 31, 1971. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 28 Dec 1971. 29p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operations during August to October 1971

- 221 26:11392 (HEDL-TME--71-121) FUEL MOTION RESTRICTOR SCREENING CAPSULE IRRADIATIONS. Pember, L. A. (Hanford Engineering Development Lab., Richland, Wash.). Sep 1971. Contract AT(45-1)-2170. 71p. Dep. NTIS.

FAST TEST REACTOR - fuel elements for, effectiveness and material compatibility of fuel motion restrictors for, (E)
 REACTOR FUEL ELEMENTS - fuel motion restrictors for fast, effectiveness and material compatibility of, (E)
 REACTORS, FAST - fuel elements for, effectiveness and material compatibility of fuel motion restrictors for, (E)

- 222 26:11393 (HEDL-TME--71-153) FTR SET 300, MULTIGROUP CROSS SECTIONS FOR FTR DESIGN. Schenter, R. E.; Kidman, R. B.; Nelson, J. V. (Hanford Engineering Development Lab., Richland, Wash.). Oct 1971. Contract AT(45-1)-2170. 160p. (ENDF--164). Dep. NTIS.

DATA TABULATIONS - FTR Set 300, 30-group neutron cross sections for fast reactor design
 FAST TEST REACTOR - design of, 30-group neutron cross section library for
 NEUTRON CROSS SECTIONS - tables of multigroup, for fast reactor design calculations

- 223 26:11400 BURST CARTRIDGE DETECTION IN BR-5. Efimov, I. A.; Mamaev, L. I.; Filonov, V. S. At. Energ. (USSR); 31: No. 6, 567-71(Dec 1971). (In Russian).

REACTOR FUEL ELEMENTS - failure detection system for liquid sodium cooled
 REACTORS, RESEARCH - fuel elements for liquid sodium cooled BR-S, failure detection system for

- 224 26:11421 IMPROVEMENTS IN NUCLEAR REACTOR INSTALLATIONS. Jones, Desmond Hector (to United Kingdom Atomic Energy Authority). British Patent 1,253,991. 17 Nov 1971. Filed 5 Apr 1968.

REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - fuel element loading tubes for, sliding seals for upper extensions of
 SEALS AND GLANDS - design of sliding, for upper extensions of reactor fuel element loading tubes

- 225 26:14118 EFFECT OF WIDE SCATTERING RESONANCES ON NEUTRON MULTIGROUP CROSS SECTIONS. Stacey, Weston M. Jr. (Argonne National Lab., Ill.). Nucl. Sci. Eng.; 47: No. 1, 29-39(Jan 1972).

LIQUID METAL FAST BREEDER REACTOR - neutron multigroup cross sections in core of, effect of wide scattering resonances on
 NEUTRONS - reactions with plutonium and uranium in LMFBR compositions, effect of wide scattering resonances on multigroup cross sections for
 PLUTONIUM ALLOYS AND SYSTEMS; URANIUM ALLOYS AND SYSTEMS - neutron multigroup cross sections for, effect of wide scattering resonances on

- 226 26:14358 (DOCKET-50016--140) ENRICO FERMI ATOMIC POWER PLANT. Report for October 1971. (Power Reactor Development Co., Detroit, Mich.). 11 Jan 1972. 17p. (PRDC-EF--98). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during October 1971
- 227 26:14359 (DOCKET-50016--141) ENRICO FERMI ATOMIC POWER PLANT. Failure to Determine Starting Time of Emergency Electrical System Diesel Generator. (Power Reactor Development Co., Detroit, Mich.). 17 Jan 1972. 2p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - emergency power system for, failure to test diesel generator
- 228 26:14389 (DOCKET-50016--139) ENRICO FERMI ATOMIC POWER PLANT. Location of Pressure Relief Valves. (Division of Compliance (AEC), Glen Ellyn, Ill. Region III). 17 Jan 1972. 4p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - steam line for, installation of safety valves and headers in main
- 229 26:14452 (ANL--7887) REACTOR DEVELOPMENT PROGRAM PROGRESS REPORT, NOVEMBER 1971. (Argonne National Lab., Ill.). 29 Dec 1971. Contract W-31-109-eng-38. 180p. Dep. NTIS.
- CRITICAL ASSEMBLIES - operation of ZPR-3 Assembly 53, ZPR-6 Assembly 7, and ZPPR Assembly 2 during November 1971
EXPERIMENTAL BREEDER REACTOR-II - operations during November 1971
FAST FLUX TEST FACILITY - coolant for, monitoring and sampling system for liquid sodium
FAST FLUX TEST FACILITY - instrumentation for
HEATED EFFLUENTS - dispersion in Lake Michigan of
LIQUID METAL FAST BREEDER REACTOR - development during November 1971
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, performance and failure characteristics of
LIQUID METAL FAST BREEDER REACTOR - fuels for, processing methods for
LIQUID METAL FAST BREEDER REACTOR - instrumentation for
LIQUID METAL FAST BREEDER REACTOR - coolant for, monitoring and sampling system for liquid sodium
LAKE MICHIGAN - thermal effluents dispersion in
REACTOR FUEL ELEMENTS - performance of liquid metal cooled fast
REACTOR FUEL ELEMENTS - failure characteristics of liquid metal cooled fast
REACTOR FUELS - development of mixed oxide fast
REACTOR FUELS - processing methods for fast
- 230 26:14458 IMPROVEMENTS IN OR RELATING TO NUCLEAR REACTORS. Jackson, George Oliver (to United Kingdom Atomic Energy Authority). British Patent 1,256,874. 15 Dec 1971. Filed 23 Feb 1968.
- LIQUID METAL FAST BREEDER REACTOR - design of pool type, with liquid coolant supported by layer of frozen coolant
- 231 26:14460 IMPROVEMENTS IN OR RELATING TO NUCLEAR REACTORS. Jackson, George Oliver (to United Kingdom Atomic Energy Authority). British Patent 1,258,763. 30 Dec 1971. Filed 23 Feb 1968.
- REACTORS - core vessel for liquid cooled, metal lined concrete vault for enclosure of
- 232 26:14474 (KFK-EXT--22/71-1) PIN MONITORING IN SODIUM-COOLED REACTORS BY MEANS OF DELAYED NEUTRON DETECTION. Jacobi, S.; Schmitz, G. (Kernforschungszentrum, Karlsruhe (West Germany). Labor fuer Elektronik und Messtechnik). Feb 1971. 15p. (In German). INIS.
- REACTOR FUEL ELEMENTS - failure detection in sodium cooled, delayed neutron monitoring for REACTORS, LIQUID METAL-COOLED - fuel elements in sodium cooled, delayed neutron detection for failure monitoring of
- 233 26:14481 (ORNL-TM--3666) FAST REACTOR SHIELDING, ACTIVITY NO. 40 01 61, 189A NO. 10028.

Monthly Progress Report, November 1971. Mynatt, F. R.; Clifford, C. E.; Gritzner, M. L.; Maerker, R. E. (Oak Ridge National Lab., Tenn.). 31 Dec 1971. 36p. Dep. NTIS.

FAST TEST REACTOR - neutron flux in cavity area of, effects of stored fuel elements on, (T)

LIQUID METAL FAST BREEDER REACTOR - coolant for, neutron shielding effects of sodium, (E/T)

NEUTRONS - attenuation in liquid sodium, (E/T)

SODIUM - neutron attenuation in, (E/T)

TOWER SHIELDING FACILITY - pipe chase mockup in, analysis of neutron streaming in, (T)

- 234 26:14490 (GEAP--13731) MEASURED LOSS OF SELECTED FISSION PRODUCTS FROM HIGH-BURNUP MIXED-OXIDE FUEL IN A MINIATURE PUMPED SODIUM LOOP. Plumlee, D. E.; Novak, P. E. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Aug 1971. Contract AT(04-3)-189. 32p. Dep. NTIS.

FISSION PRODUCTS - release from failed liquid sodium cooled stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) fuel pins, (E)

FISSION PRODUCTS - distribution in failed liquid sodium cooled stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) fuel pins, (E)

LIQUID METAL FAST BREEDER REACTOR - fuel pins in, fission products release and distribution from failed stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2), (E)

REACTOR FUEL ELEMENTS - fission products release and distribution from failed liquid sodium cooled stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pin type, (E)

- 235 26:14493 LMFBR FUEL ROD DESIGN LIMITS AND TRANSIENT SURVIVAL CRITERIA. Carelli, Mario D.; Anderson, Carl A. Jr.; Markley, Robert A. Nucl. Eng. Int.; 17: No. 188, 43-7(Jan 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, design limits and transient failure criteria for

- 236 26:14504 (ORNL-TM--3623) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR SEPTEMBER--OCTOBER 1971. Cottrell, Wm. B. (Oak Ridge National Lab., Tenn.). Jan 1972. Contract W-7405-eng-26. 156p. Dep. NTIS.

FISSION PRODUCTS - release from coated particle fuels, effects of postirradiation annealing on, (E)

FISSION PRODUCTS - distribution in cooling systems of HTGR-type reactors, (E)

GRAPHITE - corrosion of H327, by high temperature steam, (E)

HEATERS - development for sodium cooled reactor fuel element testing facility

INFORMATION CENTERS - operation of Nuclear Safety, during September and October 1971

IODINE - desorption from iron oxides, effects of temperature on, (E)

IRON OXIDES Fe_3O_4 - iodine desorption from, effects of temperature on, (E)

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, Failed Fuel Mockup facility for testing

NOZZLES - stresses in reactor pressure vessel, effects of attachment configuration on, (E/T)

PIPES - design criteria for nuclear service, development program for

PIPES - tees for nuclear service, stress testing of

PRESSURE VESSELS - fracture of heavy section steel, effects of flaw growth and propagation on, (E)

PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)

PUMPS - design criteria for nuclear service, development program for

REACTOR FUEL ELEMENTS - failure of sodium cooled, mockup testing facility for

REACTOR FUEL ELEMENTS - heat transfer in water cooled, effects of coolant loss conditions on, (T)

REACTOR FUELS - fission product release from coated particle, effects of postirradiation annealing on, (E)

REACTOR SAFETY - development activities during September and October 1971

REACTORS, LIQUID METAL-COOLED - standards for, development of engineering

REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly heat transfer characteristics during, (T)

REACTORS, WATER-COOLED - standards for, development of engineering

STANDARDS - development of reactor engineering, ORNL program for

STEAM - corrosive effects on H327 graphite, (E)

VALVES - design criteria for nuclear service, development program for

- 237 26:14519 (GEAP--13671) CALCULATED RADIOACTIVITY OF THE FFTF PRIMARY SODIUM SYSTEM DUE TO MASS TRANSFER. Wozadlo, G. P.; Boardman, C. E.; Weiss, M. L. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Aug 1971. Contract AT(04-3)-189. 28p. Dep. NTIS.
- FAST TEST REACTOR - cooling system of, radiation dose levels from corrosion and mass transport in, (T)
- 238 26:14521 (JAERI-M--4386) STABILIZATION OF COOLANT TEMPERATURE BY FLOW RATE VARIATIONS IN CORE OF JEFR. I. Ezaki, Mashiro; Suzuki, Katsuo; Saito, Shinzo (Japan Atomic Energy Research Inst., Tokyo). Mar 1971. 28p. (In Japanese).
- JAPANESE EXPERIMENTAL FAST REACTOR - coolant temperature control in, flow rate variations technique for
- 239 26:14526 (RDT-E--13-1-T(6-71)) FAST FLUX TEST FACILITY CERAMIC GRADE PLUTONIUM DIOXIDE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 15p. RSO.
- FAST TEST REACTOR - fuel pins for, quality control standards for ceramic grade plutonium oxide (PuO_2) for
 PLUTONIUM OXIDES PuO_2 - quality control of ceramic grade fuel pins, standards for
 REACTOR FUEL ELEMENTS - fabrication of pin type, quality control of ceramic grade plutonium oxide (PuO_2) for
 STANDARDS - fuel pins, quality control of ceramic grade plutonium oxide (PuO_2) for
- 240 26:14527 (RDT-E--13-2-T(6-71)) FAST FLUX TEST FACILITY CERAMIC GRADE URANIUM DIOXIDE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 13p. RSO.
- FAST TEST REACTOR - fuel pins for, quality control standards for ceramic grade uranium oxide (UO_2) for
 REACTOR FUEL ELEMENTS - fabrication of pin type, quality control of ceramic grade uranium oxide (UO_2) for
 STANDARDS - fuel pins, quality control of ceramic grade uranium oxide (UO_2) for
 URANIUM OXIDES UO_2 - quality control of ceramic grade fuel pins, standards for
- 241 26:14528 (RDT-E--13-5-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 21p. RSO.
- FAST TEST REACTOR - fuel pins for, standards for Type 316 stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) driver
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of fuel pins, standards for
 REACTOR FUEL ELEMENTS - fabrication of Type 316 stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pin type, standards for
 STANDARDS - fuel pins, Type 316 stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of fuel pins, standards for
- 242 26:14529 (RDT-E--13-6-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN FUEL PELLET. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 26p. RSO.
- FAST TEST REACTOR - fuel pins for, standards for plutonium oxide (PuO_2)--uranium oxide (UO_2) pellets for driver
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of pellets for fuel pins of, standards for
 REACTOR FUEL ELEMENTS - fabrication of plutonium oxide (PuO_2)--uranium oxide (UO_2) pellets for pin type, standards for
 STANDARDS - fuel pins, fabrication of plutonium oxide (PuO_2)--uranium oxide (UO_2) pellets for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of pellets for fuel pins of, standards for
- 243 26:14530 (RDT-E--13-7-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN INSULATOR PELLET. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 16p. RSO.

FAST TEST REACTOR - fuel pins for, standards for uranium oxide (UO_2) insulator pellets for driver
 REACTOR FUEL ELEMENTS - insulator pellets for pin type, standards for uranium oxide (UO_2)
 STANDARDS - insulator pellets for fuel pins, uranium oxide (UO_2)
 URANIUM OXIDES UO_2 - fabrication of insulator pellets for fuel pins, standards for

- 244 26:14531 (RDT-E--13-8-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN SEAMLESS CLADDING TUBE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 34p. RSO.

FAST TEST REACTOR - fuel pins for, standards for modified Type 316 stainless steel cladding tubes for driver
 REACTOR FUEL ELEMENTS - cladding tubes for driver pin type, standards for modified Type 316 stainless steel
 STAINLESS STEEL - fabrication of seamless fuel pin cladding tubes of modified Type 316, standards for
 STANDARDS - cladding tubes for driver fuel pins, modified Type 316 stainless steel

- 245 26:14532 (RDT-E--13-9-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN END CAPS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 21p. RSO.

FAST TEST REACTOR - fuel pins for, standards for modified Type 316 stainless steel end caps for driver
 REACTOR FUEL ELEMENTS - end caps for pin type, standards for modified Type 316 stainless steel
 STANDARDS - end caps for fuel pins, modified Type 316 stainless steel

- 246 26:14533 (RDT-E--13-10-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN REFLECTORS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 15p. RSO.

FAST TEST REACTOR - fuel pins for, standards for Inconel 600 reflectors for
 REACTOR FUEL ELEMENTS - reflectors for pin type, standards for Inconel 600
 STANDARDS - reflectors for fuel pins, Inconel 600

- 247 26:14534 (RDT-E--13-11-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN PLENUM SPACER. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 16p. RSO.

FAST TEST REACTOR - fuel pins for, standards for Type 316 stainless steel plenum spacers for driver
 REACTOR FUEL ELEMENTS - spacers for pin type, standards for Type 316 stainless steel plenum
 STANDARDS - spacers for fuel pins, Type 316 stainless steel plenum

- 248 26:14535 (RDT-E--13-12-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN PLENUM SPRING. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 15p. RSO.

FAST TEST REACTOR - fuel pins for, standards for Type 302 stainless steel plenum springs for driver
 REACTOR FUEL ELEMENTS - plenum springs for driver pin type, standards for Type 302 stainless steel
 STANDARDS - plenum springs for driver fuel pins, Type 302 stainless steel

- 249 26:14536 (RDT-E--13-13-T(6-71)) FAST FLUX TEST FACILITY DRIVER FUEL PIN WRAP WIRE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 18p. RSO.

FAST TEST REACTOR - fuel pins for, standards for modified Type 316 stainless steel wire wrapping for driver
 REACTOR FUEL ELEMENTS - wire wrapping for pin type, standards for modified Type 316 stainless steel
 STANDARDS - wire wrapping for fuel pins, modified Type 316 stainless steel

- 250 26:14559 (RT/FI--(71)23) COMPARISON OF POINT AND SPACE KINETICS IN SIGNIFICANT CASES OF FAST REACTORS. Cecchini, G. P.; Zaccarelli, M. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 16 Jul 1971. 10p. (In Italian). Dep. NTIS (U. S. Sales Only).
- PEC FAST TEST REACTOR - kinetics of, comparison of point and space, (T)
PEC FAST TEST REACTOR - accidents in, comparison of point and space kinetics for analysis of, (T)
REACTORS, FAST - kinetics of, comparison of point and space, (T)
REACTORS, FAST - accidents in, comparison of point and space kinetics for analysis of, (T)
- 251 26:15005 (RDT-E--13-3-T(6-71)) FAST FLUX TEST FACILITY URANYL NITRATE SOLUTION. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 13p. RSD.
- FAST FLUX TEST FACILITY - fuel for, standards for uranyl nitrate solutions for
STANDARDS - uranyl nitrate, for FFTF
URANYL NITRATES - standards for solutions of, for production of FFTF fuel
- 252 26:15006 (RDT-E--13-4-T(7-71)) FAST FLUX TEST FACILITY PLUTONIUM NITRATE SOLUTION. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1971. 13p. RSD.
- FAST FLUX TEST FACILITY - fuel pins for, standards for plutonium nitrate solutions for
PLUTONIUM NITRATES - standards for solutions of, for FFTF fuel production
STANDARDS - plutonium nitrate, for FFTF
- 253 26:15120 (RDT-E--3-2-T(8-69)) CENTRIFUGAL: FREE-SURFACE SODIUM PUMP WITH ELECTRICAL DRIVE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Aug 1969. 71p. LMEC.
- PUMPS (LIQUID METAL) - standards for centrifugal sodium, with electric drive
SODIUM - pumps for, standards for free-surface centrifugal
STANDARDS - centrifugal free surface sodium pump with electric drive
- 254 26:15129 (ANL--7884) ON THE INCIPIENT BOILING OF SODIUM AND ITS APPLICATION TO REACTOR SYSTEMS. Holtz, Robert Edward (Argonne National Lab., Ill.). Nov 1971. Contract W-31-109-eng-38. 126p. Dep. NTIS. Thesis. Submitted to Northwestern Univ., Evanston, Ill.
- BOILING - superheat for incipient, of sodium, model for predicting
REACTORS, LIQUID METAL-COOLED - accidents in, model for predicting incipient-boiling superheat during
SODIUM - boiling of, model for predicting superheat for incipient
- 255 26:15651 VANADIUM ALLOY DEVELOPMENT FOR SODIUM-COOLED REACTORS. Klueh, R. L.; DeVan, J. H. (Oak Ridge National Lab., Tenn.). Nucl. Eng. Des.; 17: No. 3, 371-6(1971).
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel cladding for sodium, development of vanadium alloys for use as
VANADIUM ALLOYS AND SYSTEMS - development for use as fuel cladding in sodium-cooled fast-breeder reactors
- 256 26:15673 (ORNL-TM--3550) FUELS AND MATERIALS DEVELOPMENT PROGRAM QUARTERLY PROGRESS REPORT FOR PERIOD ENDING SEPTEMBER 30, 1971. Patriarca, P. (Oak Ridge National Lab., Tenn.). Dec 1971. Contract W-7405-eng-26. 249p. Dep. NTIS.
- ACTINIDES - distribution in irradiated mixed oxide fuels, model for studies of
BISMUTH - level indicator for contained liquid, development of
BOILERS - inspection of failed ALCO/BLH, for analysis of corrosion mechanisms in sodium heating tests
BOILERS - corrosion of weldments in, preparation of specimens for testing
BORON CARBIDES - performance as neutron absorber, models for studies of
BORON CARBIDES - radiation effects on thermal conductivity of, relations of boron-10 enrichment with in-pile
BORON ISOTOPES B-10 - neutron capture cross section of, calculation of in-pile
BORON SYSTEMS; CARBON SYSTEMS - B--C, phase studies of

CROLOY - mechanical properties of, research program on
 EDDY CURRENT TESTING - methods for LMFBR components, development of
 FUEL CAPSULES - materials for, development and testing of refractory alloy
 HASTELLOY N; HASTELLOY W; HASTELLOY X; INCOLOY 800 - corrosion of boiler materials of, by
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 INCOLOY 800 - cracking of weld filler metals of, effects of aluminum and titanium contents
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 INCONEL 82; INCONEL 600; INCONEL 601; INCONEL 625 - corrosion of boiler materials of, by
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 NEUTRONS, FAST - effects on microstructure of fine-grained precipitate-free stainless
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 PENETRANT TESTING - methods for LMFBR components, development of
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 PLATINUM ALLOYS AND SYSTEMS - Pt-base--Th--W, tensile properties at 0 to 1300°C
 PLATINUM ALLOYS AND SYSTEMS - Pt-base--W, tensile properties at 0 to 1300°C
 PLUTONIUM NITRIDES - PuN--UN, radiation effects on defect distribution in fuels of, self-
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of controlled density and stoichiometry
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 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on clad Sphere-Pac fuel pellets and
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 RADIOGRAPHY, INDUSTRIAL - methods for LMFBR components, development of
 REACTOR CONTROL ELEMENTS - development of vented stainless steel-clad boron carbide, for
 helium release
 REACTOR FUEL ELEMENTS - performance of mixed oxide, analysis of cladding-fuel reactions in
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 REACTOR FUEL ELEMENTS - radiation effects on swelling of T-111-clad uranium nitride,
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 REACTOR FUELS - thermal expansion of mixed oxide, relations with temperature, equations
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 REACTOR FUELS - thermal conductivity of mixed oxide, effects of burnup, density,
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 STAINLESS STEEL - radiation effects on density of EBR-II control rod thimbles of, in-pile
 STAINLESS STEEL - radiation effects on microstructure of Type 316, at 450 to 700°C, fast
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 STAINLESS STEEL - radiation effects on microstructure of titanium-modified Type 316, at
 450 to 700°C, fast neutron
 STAINLESS STEEL - radiation effects on defect distribution in Types 316, 19-9 DL, and
 Sandvik HV, relations of grain size and precipitates with fast neutron
 STAINLESS STEEL - corrosion of boiler materials of, by steam, effects of trace oxygen and
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 STAINLESS STEEL - mechanical properties of Type 304, research program on
 STAINLESS STEEL - microstructure of welds of Types 304 and 308, research program on
 STEAM - corrosive effects on refractory boiler alloys, relations with impurities
 STEEL - weldability of low-carbon and low-alloy ferritic, research program on
 T-111 (TANTALUM ALLOY) - tensile properties at 1000°C, effects of oxygen doping on
 TANTALUM - radiation effects on microstructure of, in-pile
 TANTALUM - radiation heating in activated specimens of, analysis of self-
 TANTALUM BORIDES - preparation of neutron absorbers of, methods for
 TANTALUM ISOTOPES Ta-181 - neutron capture cross section of, calculation of in-pile
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 THORIUM OXIDES ThO₂ - ThO₂--W, creep rupture of rods of, at high temperatures
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 TUNGSTEN ALLOYS AND SYSTEMS - ThO₂--W, microstructure of extruded tubes of, effects of
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 TUNGSTEN ALLOYS AND SYSTEMS - ThO₂--W, creep rupture of rods of, at high temperatures
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 TUNGSTEN ALLOYS AND SYSTEMS - Pt-base--Th--W, tensile properties at 0 to 1300°C
 TUNGSTEN ALLOYS AND SYSTEMS - Pt-base--W, tensile properties at 0 to 1300°C
 TZM (MOLYBDENUM ALLOY) - mechanical properties of, effects of oxygen doping on
 ULTRASONIC TESTING - methods for LMFBR components, development of

URANIUM NITRIDES - PuN--UN, radiation effects on defect distribution in fuels of, self-
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of controlled density and stoichiometry fuels
 of, development of methods for
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on clad Sphere-Pac fuel pellets and
 spheres of, in-pile

- 257 26:15721 PROCESS FOR PRODUCING COBALT ALLOYS. Herchenroeder, Robert B.; Chow, Joe G. Y.;
 Fleitman, Albert H. (to United States Atomic Energy Commission). U. S. Patent 3,620,852.
 16 Nov 1971. Filed 27 Feb 1970.

CARBON SYSTEMS; CHROMIUM ALLOYS AND SYSTEMS; COBALT ALLOYS AND SYSTEMS; IRON ALLOYS AND
 SYSTEMS; MOLYBDENUM ALLOYS AND SYSTEMS; NICKEL ALLOYS AND SYSTEMS

C--Co-base--Cr--Fe--Mo--Ni--Ti--W, development for use in high-temperature irradiated
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TITANIUM ALLOYS AND SYSTEMS; TUNGSTEN ALLOYS AND SYSTEMS

C--Co-base--Cr--Fe--Mo--Ni--Ti--W, development for use in high-temperature irradiated
 sodium environments

- 258 26:15839 (AI-AEC--13015) FUELS, MATERIALS, AND COOLANT CHEMISTRY PROGRAMS. Quarterly
 Technical Progress Report, July--September 1971. (Atomics International, Canoga Park,
 Calif.). 15 Nov 1971. 70p. Dep. NTIS.

ARGON - analysis of sodium cover gas of, development of spectrometric system for, p. 39
 FAST FLUX TEST FACILITY - cooling system for, development of sodium freeze vents and vapor
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FREEZE JACKETS - development of vented, for FFTF sodium cooling system, p. 15

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STAINLESS STEEL - tensile properties of Type 316, effects of carbon content on, p. 57

TRAPS - testing of sodium vapor, for FFTF facilities, p. 5-25

- 259 26:15840 (ANCR--1016, pp 91-157) MATERIALS. (Aerojet Nuclear Co., Idaho Falls, Idaho).
 Oct 1971. In Nuclear Technology Division annual progress report for period ending June
 30, 1971.

ALUMINUM - corrosion by water under ATR and ETR conditions

ALUMINUM ALLOYS AND SYSTEMS - Al--U, radiation effects on blistering and swelling of
 plate-type fuels of, at high burnups

BORON NITRIDES - compatibility with Zircaloy-4 at high temperatures

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CRYSTALS - force constants of, calculation using changes in ground state electron energy

EXPERIMENTAL BREEDER REACTOR-II - fuels for, microprobe inspection of

INCOLOY - radiation effects on fatigue at high temperatures, fast neutron

MOLECULES - force constants of, calculation using changes in ground state electron energy

NEUTRONS, FAST - effects on fatigue of Incoloy 800 and Type 316 stainless steel at high
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NITRIC ACID - HNO₃--UO₂(NO₃)₂, corrosive effects on Type 304 stainless steel at 185°F

NOZZLES - caps for waste calciner, microprobe inspection of

POTASSIUM ALLOYS AND SYSTEMS - K--Na, compatibility of liquid, with stainless steel at
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POWER BURST FACILITY - fuels for, calculation of creep stress on grains in

REACTOR FUEL ELEMENTS - corrosion of simulated Zircaloy-clad, by water at 2100 to 2400°F,
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SODIUM ALLOYS AND SYSTEMS - K--Na, compatibility of liquid, with stainless steel at high
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 STAINLESS STEEL - compatibility of Types 304, 316, and 318, with flowing potassium--sodium alloys high temperatures
 STAINLESS STEEL - corrosion of Type 304, by nitric acid solutions of uranyl nitrate at 185°F
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 URANYL NITRATES - HNO_3 -- $\text{UO}_2(\text{NO}_3)_2$, corrosive effects on Type 304 stainless steel at 185°F
 WATER - corrosive effects on aluminum at ATR and ETR temperatures
 WATER - corrosive effects on Zircaloy fuel cladding at high temperatures
 ZIRCALOY-3 - corrosion by water at high temperatures, mechanisms of
 ZIRCALOY-4 - compatibility with boron nitride at high temperatures

- 260 26:16869 INDUSTRIAL ASPECTS OF FAST BREEDER REACTOR. Crette, J. P. (Groupement Atomique Alsacienne Atlantique, Hauts-de-Seine, France). Kerntech. Atomprax.; 13: No. 11, 491-5(Nov 1971).
- PHENIX FAST REACTOR - design parameters of
 REACTORS, FAST - development in France
- 261 26:16878 INFLUENCE OF A LIQUID METAL FAST BREEDER REACTOR ENVIRONMENT ON INCIPIENT BOILING SUPERHEAT. Holtz, Robert E. (Argonne National Lab., Ill.); Fauske, Hans K.; Eggen, Donald T. Nucl. Sci. Eng.; 47: No. 2, 225-8 (Feb 1972).
- LIQUID METAL FAST BREEDER REACTOR - coolant in, analysis of incipient boiling superheat in liquid sodium, (T)
 SODIUM - boiling superheat in liquid, effects of fast reactor environment on incipient, (T)
- 262 26:16879 USE OF STATISTICAL THEORY OF EXTREMES IN HOT CHANNEL ANALYSIS OF A LIQUID METAL FAST BREEDER REACTOR. Mazumdar, M. (Westinghouse Research Labs., Pittsburgh). Nucl. Sci. Eng.; 47: No. 2, 187-94(Feb 1972).
- HEAT TRANSFER; LIQUID FLOW - analysis in liquid metal cooled reactors, statistical theory of extremes for hot channel
 LIQUID METAL FAST BREEDER REACTOR - core for, statistical theory of extremes for hot channel analysis of thermal hydraulic design characteristics for, (T)
- 263 26:16892 (ANL--7849) INTERACTION OF STAINLESS STEEL SURFACES WITH HIGH-TEMPERATURE SODIUM. EBR-II Project. Ruther, W. E.; Kimont, E. L.; Claar, T. D.; Wang, J. Y. N. (Argonne National Lab., Ill.). Oct 1971. Contract W-31-109-eng-38. 22p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - components for, effects of high temperature sodium on corrosion of austenitic stainless steel, (E)
 SODIUM - corrosive effects on Type 304 and Type 316 stainless steels, (E)
 STAINLESS STEEL - corrosion of Type 304 and Type 316, by high temperature sodium, (E)
- 264 26:16896 (ORNL--4711) CALCULATED CRITICALITY DATA FOR LMFBR $(\text{U}+\text{Pu})\text{O}_2$ --WATER SYSTEMS. Cobb, W. R. (Oak Ridge National Lab., Tenn.). Jan 1972. Contract W-7405-eng-26. 97p. Dep. NTIS.
- CRITICALITY - calculations for water moderated plutonium oxide (PuO_2) --uranium oxide (UO_2) spent fuels
 LIQUID METAL FAST BREEDER REACTOR - fuels for, criticality data for water storage of spent mixed oxide, (T)
 PLUTONIUM OXIDES PuO_2 ; URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , criticality data for water moderated systems of, (T)
- 265 26:16897 (ORNL-TM--3630) COMPUTER SIMULATION OF ELECTRICALLY HEATED DUMMY FUEL ELEMENTS FOR THE FFM: THERMAL EFFECTS OF PIN DEFECTS. Fukuda, A.; Parsly, L. F. (Oak Ridge National Lab., Tenn.). Jan 1972. Contract W-7405-eng-26. 18p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, computer simulation of electrically heated mockups of, (T)
 REACTOR FUEL ELEMENTS - simulation of electrically heated dummy, for Fuel Failure Mockup testing, (T)

- 266 26:16898 (ORNL-TM--3641) RADIATION PROPERTIES OF SPENT PLUTONIUM FUELS. Bell, M. J. (Oak Ridge National Lab., Tenn.). Jan 1972. Contract W-7405-eng-26. 31p. (CONF-711009--12). Dep. NTIS. From Joint meeting of the American Nuclear Society; Miami Beach, Fla. (17 Oct 1971).
- LIQUID METAL FAST BREEDER REACTOR - fuels for, radiation properties of irradiated plutonium, (E/T)
 PLUTONIUM - thermal power of irradiated fuels of, (E/T)
 PLUTONIUM - gamma radiation spectrum of irradiated fuels of, (E/T)
 PLUTONIUM - neutron production rate of irradiated fuels of, (E/T)
- 267 26:16917 (EURFNR--937) SPREAD OF LOCAL DISTURBANCES IN THE CORE OF SODIUM-COOLED FAST BREEDERS AND ITS IMPORTANCE FOR REACTOR SAFETY. Gast, K. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Translation of report KFK--1380. 199p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.
- REACTORS, BREEDER - accidents in liquid sodium cooled fast, characteristics of coolant flow disturbance and fuel element failure
 REACTORS, FAST - accidents in liquid sodium cooled breeder, characteristics of coolant flow disturbance and fuel element failure
 REACTORS, LIQUID METAL-COOLED - accidents in fast breeder, characteristics of coolant flow disturbance and fuel element failure
- 268 26:16928 THERMOHYDRODYNAMIC MODEL FOR MOLTEN UO_2 --Na INTERACTION, PERTAINING TO FAST REACTOR FUEL-FAILURE ACCIDENTS. Cronenberg, August William. Evanston, Ill.; Northwestern Univ. (1971). 150p. University Microfilms Order No. 71-30,772. Thesis.
- REACTOR FUEL ELEMENTS - failure of sodium cooled, voiding rates from uranium oxide (UO_2)--sodium reactions following, (E/T)
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element failures in, voiding rates from uranium oxide (UO_2)--sodium reactions following, (E/T)
 SODIUM - reactions with uranium oxide (UO_2) of liquid, voiding rates from
 URANIUM OXIDES UO_2 - reactions with liquid sodium, voiding rates from
- 269 26:16930 INFLUENCE OF THE COVER GAS ON THE EXPLOSION PRESSURE IN A URANIUM METAL, SODIUM FAST REACTOR. Sobrero, E. (Univ. Cattedra di Impianti Nucleari, Bologna). Energ. Nucl. (Milan); 19: No. 1, 26-35(Jan 1972). (In Italian).
- REACTORS, FAST - excursions in uranium metal fueled liquid sodium cooled, effects of cover gas on explosion pressure during
 REACTORS, LIQUID METAL-COOLED - excursions in uranium metal fueled fast, effects of cover gas on explosion pressure during
- 270 26:16949 (DOCKET-50016--143) ENRICO FERMI ATOMIC POWER PLANT. Order Extending Provisional Operating License Expiration Date. (Division of Reactor Licensing (AEC), Washington, D. C.). 25 Jan 1972. 2p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operation of, extension of license expiration date for
- 271 26:16950 (DOCKET-50016--144) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications Request for Change. (Power Reactor Development Co., Detroit, Mich.). 1 Feb 1972. 2p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - core holddown mechanism for, position during sodium leak repair of
- 272 26:16951 (DOCKET-50016--146) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications, Change No. 18. (Division of Reactor Licensing (AEC), Washington, D. C.). 10 Feb 1972. 3p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - maintenance of, revised technical specifications for
- 273 26:16981 (CEA-CONF--1877) RADIOLOGICAL SAFETY OF FRENCH REACTORS AND THEIR SITES.

Candes, P. ([Commissariat a l'Energie Atomique, Saclay (France). Centre d'Etudes Nucleaires]). [1971]. 17p. (In French). (CONF-710444--2). Dep. NTIS (U. S. Sales Only). From International conference on chemical sciences; Paris, France (20 Apr 1971).

FRANCE - nuclear power plants in, radiation hazards from accidents in
FRANCE - nuclear power plants in, radiological safety aspects of siting of
NUCLEAR POWER PLANTS - siting in France, radiological safety aspects of
PHENIX FAST REACTOR - siting of, safety aspects of
PHENIX FAST REACTOR - accidents in, radiation hazards from
REACTORS, POWER - accidents in France, radiation hazards from

- 274 26:16991 (DOCKET-50016--142) ENRICO FERMI ATOMIC POWER PLANT. Technical Specification Change No. 23 Implemented. (Division of Reactor Licensing (AEC), Washington, D. C.). 13 Sep 1971. 2p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - fuel element assemblies for, reuse of Core A and inner radial blanket
- 275 26:16992 (DOCKET-50016--145) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications, Change No. 17. (Division of Reactor Licensing (AEC), Washington, D. C.). 7 Feb 1972. 1p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - core for, position of holddown mechanism for
- 276 26:17134 NUCLEAR FUEL PIN SUB-ASSEMBLY. Agranier, Jean-Claude; Cayol, Andre (to Commissariat a l'Energie Atomique). British Patent 1,257,410. 15 Dec 1971. Priority date 19 Sep 1969, France.
- REACTOR FUEL ELEMENTS - fabrication of sodium cooled, shroud enclosed fuel pin sub-assemblies for
REACTORS, LIQUID METAL-COOLED - fuel elements for, shroud enclosed fuel pin sub-assemblies for
- 277 26:17164 (DOCKET-50231--108) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Failure of Main Secondary Expansion Tank Low Level Trip. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 21 Jan 1972. 4p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - cooling system for, failure of expansion tank low level trip in secondary
- 278 26:17166 INCIPIENT BOILING OF SODIUM AND ITS APPLICATION TO REACTOR SYSTEMS. Holtz, Robert Edward. Evanston, Ill.; Northwestern Univ. (1971). 171p. University Microfilms Order No. 71-30,833. Thesis.
- BOILING - superheats for sodium pool incipient
REACTORS, LIQUID METAL-COOLED - coolant boiling in, superheats for sodium pool incipient, (E/T)
SODIUM - boiling in reactors, superheats for incipient, (E/T)
- 279 26:17338 (ORNL--4749, pp 47-50) METHODS DEVELOPMENT AND EVALUATION LABORATORY. (Oak Ridge National Lab., Tenn.). Jan 1972. In Analytical Chemistry Division annual progress report for period ending September 30, 1971.
- ANALYTICAL CHEMISTRY - developments in
LIQUID METAL FAST BREEDER REACTOR; REACTORS, MOLTEN-SALT - fuel analyses for
- 280 26:17671 (HEDL-TME--71-135) X-RAY REAL-TIME IMAGING FOR NONDESTRUCTIVE TESTING OF FAST FLUX TEST FACILITY FUEL PINS. Jackson, C. N. Jr.; Gray, W. H. (Hanford Engineering Development Lab., Richland, Wash.). Sep 1971. Contract AT(45-1)-2170. 21p. Dep. NTIS.
- FAST FLUX TEST FACILITY - fuel elements for, x-ray imaging system for real-time inspection of pin-type
RADIOGRAPHY, INDUSTRIAL - equipment and method for x-ray, for real-time imaging inspection

- of FFTF fuel pins
X-RAY EQUIPMENT - design and performance of, for imaging system for real-time inspection of FFTF fuel pins
- 281 26:18123 (WHAN-IR--45) INSTRUCTION FOR THE SELECTION AND USE OF ACCEPTANCE SAMPLING PLANS. Stevenson, W. F. (WADCO Corp., Richland, Wash.). Nov 1970. Contract AT(45-1)-2170. 60p. Dep. NTIS.
- FAST TEST REACTOR - fuels and fuel components for, standard for selection of acceptance sampling plans for
STANDARDS - selection and use of acceptance sampling plans for FTR fuels and fuel components
- 282 26:18182 (WARD--4210-T-1-3) SODIUM TECHNOLOGY PROGRAM. Progress Report for the Period Ending August 31, 1971. Ray, W. E. (Westinghouse Electric Corp., Pittsburgh, Pa. Advanced Reactors Div.). Contract AT(30-1)-4210. 83p. Dep. NTIS.
- CARBON - determination in sodium and reactor materials, development of meter for
CARBON - diffusion in Types 304 and 316 stainless steel at 1300°F
CROLOY - microstructure of, effects of exposure to carbon-containing sodium at 1300°F on
EQUIPMENT AND PROCEDURES - design for testing mechanical components in high-temperature sodium
EQUIPMENT AND PROCEDURES - design for testing self-welding of reactor materials in high-temperature sodium environments
FAST FLUX TEST FACILITY - materials for, development and testing of
GAGES AND METERS - electrolyte tubes for oxygen-measuring, testing of
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LOOPS - design of sodium, for materials wear testing
NITROGEN - diffusion in Types 304 and 316 stainless steel at 1300°F
OXYGEN - determination in sodium and reactor materials, development of meter for
SODIUM - analysis for carbon and oxygen, development of on-line meters for
SODIUM - compatibility of liquid, with yttrium oxide-doped thorium dioxide
STAINLESS STEEL - diffusion of carbon and nitrogen in Types 304 and 316, at 1300°F
STAINLESS STEEL - microstructure of Types 304, 316, and 321, effects of exposure to carbon-containing sodium at 1300°F on
THORIUM OXIDES ThO₂ - properties of yttrium oxide-doped, for use as oxygen meter electrolyte tubes
THORIUM OXIDES ThO₂ - compatibility of yttrium-doped, with liquid sodium
WEAR - measurement of sliding contact, in liquid sodium
- 283 26:19698 (ANL--7900) REACTOR DEVELOPMENT PROGRAM PROGRESS REPORT, DECEMBER 1971. (Argonne National Lab., Ill.). 28 Jan 1972. Contract W-31-109-eng-38. 169p. Dep. NTIS.
- CRITICAL ASSEMBLIES - operation of ZPPR, during December 1971
EXPERIMENTAL BREEDER REACTOR-II - operations during December 1971
FAST FLUX TEST FACILITY - instrumentation for, development of
HEATED EFFLUENTS - dispersion from power plant outfalls
LIQUID METAL FAST BREEDER REACTOR - development during December 1971
LIQUID METAL FAST BREEDER REACTOR - safety of, heat transfer and fluid flow analysis for
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, development of
LIQUID METAL FAST BREEDER REACTOR - physics parameters of
LIQUID METAL FAST BREEDER REACTOR - coolant for, monitoring and sampling system for liquid sodium
LIQUID METAL FAST BREEDER REACTOR - fuel cycles for, development of
REACTOR SAFETY EXPERIMENTS - operation of TREAT, during December 1971
REACTORS, FAST - fuel elements for gas cooled, development of
REACTORS, GAS-COOLED - fuel elements for fast, development of
- 284 26:19703 PARAMETRIC STUDY OF THE REACTOR PHYSICS DESIGN OF A SODIUM-COOLED FAST POWER REACTOR. Mueller, A.; Schott, H.; Wolter, W. (VEB Kombinat Kraftwerksanlagenbau, Berlin). Kernenergie; 14: No. 7-8, 239-47 (Jul-Aug 1971). (In German).
- REACTORS, BREEDER - physics calculations for 1000 MW(e) liquid sodium cooled fast, effects of core configuration and composition on
REACTORS, FAST - physics calculations for 1000 MW(e) liquid sodium cooled breeder, effects of core configuration and composition on
REACTORS, LIQUID METAL-COOLED - physics calculations for 1000 MW(e) fast breeder, effects of core configuration and composition on

REACTORS, POWER - physics calculations for 1000 MW(e) liquid sodium cooled fast breeder, effects of core configuration and composition on

- 285 26:19704 (ANL/EBR--41) SAFETY ANALYSIS OF THE EBR-II HIGH-TEMPERATURE NUCLEAR INSTRUMENT TEST FACILITY (NITF). Wilkes, C. W.; Cerchione, J. D.; Rice, R. E.; Long, P. M. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Oct 1971. Contract W-31-109-eng-38. 53p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - experimental facilities of, design characteristics and safety analysis for nuclear instrument testing of
INSTRUMENTS - testing of nuclear, design characteristics in-pile experimental facilities for
REACTOR EXPERIMENTAL FACILITIES - design characteristics of nuclear instrument testing, for liquid sodium cooled fast reactor
REACTOR EXPERIMENTAL FACILITIES - safety analyses for nuclear instrument testing, for liquid sodium cooled fast reactor

- 286 26:19706 (JAPFNR--20) RESEARCH AND DEVELOPMENT OF THE METHOD OF CALCULATION OF CONTROL ROD WORTH BY MONTE CARLO METHOD. ANALYSIS OF APPLICABILITY OF THE MONTE CARLO CODE MONEX-ROD. Nakamura, H. (Fuji Electric Co. Ltd., Tokyo (Japan)). Translation of report PNC-J--203-71-3-1. 15p. Dep. NTIS (U. S. Sales Only).

COMPUTER PROGRAMS - MONEX-ROD, for fast reactors control rod reactivity worth calculations
JAPANESE EXPERIMENTAL FAST REACTOR - control rods for, computer program calculation of reactivity worth of boron carbide (B_4C)
REACTOR CONTROL ELEMENTS - reactivity worth of fast, computer program calculation of
REACTORS, FAST - control rods for, computer program calculation of reactivity worth of

- 287 26:19707 (ANL--7834) NOISE INVESTIGATION AND REPAIR OF THE EBR-II INTERMEDIATE HEAT EXCHANGER. EBR-II Project. Buschman, H. W.; Cerutti, B. C.; Clark, A. F. (Argonne National Lab., Ill.). Aug 1971. Contract W-31-109-eng-38. 83p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - heat exchanger for, repair of loose evacuation tube in
HEAT EXCHANGERS - repair of loose tubes in fast reactor intermediate

- 288 26:19708 (ANL/EBR--52) PURITY OF EBR-II PRIMARY COVER GAS. Cutforth, D. C.; Perry, W. H. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Nov 1971. Contract W-31-109-eng-38. 31p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - coolant cover gas for, sources and levels of hydrogen, oxygen, and nitrogen of impurities in, (E)

- 289 26:19712 (ANL--6795) IRRADIATION BEHAVIOR OF URANIUM-FISSIUM ALLOYS. EBR-II Project. Kittel, J. H.; Horak, J. A.; Beck, W. N.; Fousek, R. J. (Argonne National Lab., Ill.). Oct 1971. Contract W-31-109-eng-38. 46p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuels for, irradiation behavior of uranium--fission alloy, (E)
FISSIUM - fissium--U, dimensional stability of, effects of irradiation conditions, composition, and cladding restraint on, (E)
FISSIUM - fissium--U--Zr, dimensional stability of, effects of irradiation conditions, composition, and cladding restraint on, (E)
URANIUM ALLOYS AND SYSTEMS - fissium--U, dimensional stability of, effects of irradiation conditions, composition, and cladding restraint on, (E)
URANIUM ALLOYS AND SYSTEMS; ZIRCONIUM ALLOYS AND SYSTEMS - fissium--U--Zr, dimensional stability of, effects of irradiation conditions, composition, and cladding restraint on, (E)

- 290 26:19713 (ANL/EBR--50) COMPILATION AND REVIEW OF EXISTING SAFETY ANALYSES FOR FUELED SUBASSEMBLIES IN EBR-II. EBR-II Project. Gillette, J. L. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Dec 1971. Contract W-31-109-eng-38. 25p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel subassemblies for, safety analysis of
REACTOR FUEL ELEMENTS - safety analysis of liquid sodium cooled fast reactor
REACTORS, FAST - accidents in liquid sodium cooled, performance of fuel element subassemblies during

- 291 26:19722 (ANL--7844) SAMPLING AND ANALYSIS OF EBR-II SODIUM. EBR-II Project. Olson, W. H. (Argonne National Lab., Ill.). May 1971. Contract W-31-109-eng-38. 25p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - coolant of, sampling and analysis methods for sodium
EXPERIMENTAL BREEDER REACTOR-II - coolant of, radioisotope and metallic impurity content
of sodium

- 292 26:19723 (RDT-E--8-5-T(12-71)) EX-VESSEL HANDLING MACHINE FOR SODIUM COOLED REACTORS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Dec 1971. 23p. RSO.

REACTOR LOADING MACHINES - standards for external, for sodium cooled plants
REACTORS, LIQUID METAL-COOLED - fuel handling machines for sodium cooled, standards for
ex-vessel
STANDARDS - fuel handling machines for sodium cooled reactors, ex-vessel

- 293 26:19729 (ANL--7864) INVESTIGATION OF THE DISTRIBUTION OF FISSION PRODUCTS AMONG MOLTEN FUEL AND REACTOR PHASES. PART I. THE DISTRIBUTION OF FISSION PRODUCTS BETWEEN MOLTEN IRON AND MOLTEN URANIUM DIOXIDE. Fischer, Jack; Schilb, John D.; Chasanov, M. G. (Argonne National Lab., Ill.). Oct 1971. Contract W-31-109-eng-38. 22p. Dep. NTIS.

FISSION PRODUCTS - distribution in molten iron and molten uranium oxide (UO_2) following
reactor core meltdown, (E)
IRON - fission product distribution in molten, following reactor core meltdown, (E)
LIQUID METAL FAST BREEDER REACTOR - core meltdown accidents in, distribution of fission
products in molten iron and molten uranium oxide (UO_2) following, (E)
REACTORS, FAST - fission product distribution following core meltdown accidents in liquid
metal cooled reactors
URANIUM OXIDES UO_2 - fission product distribution in molten, following reactor core
meltdown, (E)

- 294 26:19739 (DOCKET-50016--147) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications, Request for Approval of Change. (Power Reactor Development Co., Detroit, Mich.). 17 Feb 1972. 2p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - cooling system for, testing of syphon breaker lines in

- 295 26:19747 (DOCKET-50016--148) ENRICO FERMI ATOMIC POWER PLANT. Plans to Repair Sodium Leakage. (Power Reactor Development Co., Detroit, Mich.). 16 Feb 1972. 2p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - cooling system for, repair procedures for sodium leakage from

- 296 26:19775 (DOCKET-50231--109) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Proposed Change No. 9. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 11 Feb 1972. 40p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements for, specifications for storage
of spent

- 297 26:19864 (JAPFNR--19) STUDY OF THERMAL CHARACTERISTICS OF THE JOYO CORE. III. EVALUATION OF THERMAL MIXING EFFECT AND COOLANT TEMPERATURE DISTRIBUTION OF JOYO CORE. Miyamoto, Yoshiaki (Japan Atomic Energy Research Inst., Tokyo). Translation of report PNC-J--250-71-19. 68p. Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - core of, calculation of heat transfer and fluid flow
characteristics of, (T)

- 298 26:19866 (KFK-EXT--8/70-7) CALCULATION AND DESIGN OF A SODIUM-AIR-HEAT-TRANSFER SYSTEM

FOR THE PLANNED FAST TEST REACTOR FR 3. Spilker, H. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Dec 1970. 128p. (In German). INIS.

REACTORS, FAST - cooling systems for sodium cooled research, design of sodium--air
 REACTORS, LIQUID METAL-COOLED - cooling systems for fast research, design of sodium--air
 REACTORS, RESEARCH - cooling system for FR-3, design of sodium--air

- 299 26:19867 (DOCKET-50231--110) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Clarification of Proposed Change No. 9. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 18 Feb 1972. 2p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - spent fuel element storage pool for, operating procedures for
- 300 26:19869 (AI-68-Memo--127) FFTF SODIUM FIRES AND BLAST ANALYSIS STUDY. Hopenfeld, J.; Silberberg, M.; Johnson, R. (Atomics International, Canoga Park, Calif.). 13 Feb 1969. Contract B8L-S77-42371. 71p. Dep. NTIS.
- FAST FLUX TEST FACILITY - refueling hot cell for, sodium fires and blast effects on pressures and temperatures in, (T)
 FAST FLUX TEST FACILITY - design basis accidents in refueling hot cell of, effects on temperature and pressure of sodium fires on explosions from
 REACTORS, LIQUID METAL-COOLED - coolant sodium fires and explosions in refueling hot cells of sodium, effects on temperatures and pressures of
- 301 26:19870 (HEDL-TME--71-174) USER'S GUIDE FOR THE IRRADIATION OF EXPERIMENTS IN THE FTR. Schively, D. P. (Hanford Engineering Development Lab., Richland, Wash.). Dec 1971. Contract AT(45-1)-2170. 119p. Dep. NTIS.
- FAST TEST REACTOR - experimental facilities for, design characteristics and operation of
 FAST TEST REACTOR - radiation testing programs in, users guide for
 REACTOR EXPERIMENTAL FACILITIES - design characteristics of fast test reactor
 REACTOR EXPERIMENTAL FACILITIES - operations aspects of fast test reactor
- 302 26:20675 (ANL--7827) COMPATIBILITY OF URANIUM--PLUTONIUM CARBIDE FUELS AND POTENTIAL LMFBR CLADDING MATERIALS. Latimer, T. W. (Argonne National Lab., Ill.). Sep 1971. Contract W-31-109-eng-38. 42p. Dep. NTIS.
- CHROMIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, compatibility with plutonium carbide--uranium carbide LMFBR fuels
 CHROMIUM ALLOYS AND SYSTEMS - Cr--V-base, compatibility with plutonium carbide--uranium carbide LMFBR fuels
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Fe--V-base--Zr, compatibility of Vanstar 7, with plutonium carbide--uranium carbide LMFBR fuels
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Ta--V-base--Zr, compatibility of Vanstar 8, with plutonium carbide--uranium carbide LMFBR fuels
 HASTELLOY X; HAYNES 56 ALLOY; INCOLOY 800; INCONEL 625 - compatibility with plutonium carbide--uranium carbide LMFBR fuels
 IRON ALLOYS AND SYSTEMS - Cr--Fe--V-base--Zr, compatibility of Vanstar 7, with plutonium carbide--uranium carbide LMFBR fuels
 IRON ALLOYS AND SYSTEMS - Fe--Nb--V-base--Zr, compatibility of Vanstar 9, with plutonium carbide--uranium carbide LMFBR fuels
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, compatibility of cladding materials with plutonium carbide--uranium carbide
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 NIOBIUM ALLOYS AND SYSTEMS - Fe--Nb--V-base--Zr, compatibility of Vanstar 9, with plutonium carbide--uranium carbide LMFBR fuels
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 TANTALUM ALLOYS AND SYSTEMS - Cr--Ta--V-base--Zr, compatibility of Vanstar 8, with plutonium carbide--uranium carbide LMFBR fuels
 TITANIUM ALLOYS AND SYSTEMS - Ti--V-base, compatibility with plutonium carbide--uranium carbide LMFBR fuels
 TITANIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, compatibility with plutonium

carbide--uranium carbide LMFBR fuels
 URANIUM CARBIDES - PuC--UC, compatibility of fuels of, with potential LMFBR cladding materials
 VANADIUM ALLOYS AND SYSTEMS - Ti--V-base, compatibility with plutonium carbide--uranium carbide LMFBR fuels
 VANADIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, compatibility with plutonium carbide--uranium carbide LMFBR fuels
 VANADIUM ALLOYS AND SYSTEMS - Cr--V-base, compatibility with plutonium carbide--uranium carbide LMFBR fuels
 VANADIUM ALLOYS AND SYSTEMS - Cr--Fe--V-base--Zr, compatibility of Vanstar 7, with plutonium carbide--uranium carbide LMFBR fuels
 VANADIUM ALLOYS AND SYSTEMS - Cr--Ta--V-base--Zr, compatibility of Vanstar 8, with plutonium carbide--uranium carbide LMFBR fuels
 VANADIUM ALLOYS AND SYSTEMS - Fe--Nb--V-base--Zr, compatibility of Vanstar 9, with plutonium carbide--uranium carbide LMFBR fuels
 ZIRCONIUM ALLOYS AND SYSTEMS - Cr--Fe--V-base--Zr, compatibility of Vanstar 7, with plutonium carbide--uranium carbide LMFBR fuels
 ZIRCONIUM ALLOYS AND SYSTEMS - Cr--Ta--V-base--Zr, compatibility of Vanstar 8, with plutonium carbide--uranium carbide LMFBR fuels
 ZIRCONIUM ALLOYS AND SYSTEMS - Fe--Nb--V-base--Zr, compatibility of Vanstar 9, with plutonium carbide--uranium carbide LMFBR fuels

- 303 26:20677 (BMI--1919) PROGRESS ON DEVELOPMENT OF FUELS AND TECHNOLOGY FOR ADVANCED REACTORS DURING JULY--SEPTEMBER 1971. Quarterly Report. Keller, Donald L. (Battelle Columbus Labs., Ohio). Oct 1971. Contract W-7405-eng-92. 61p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel pin fabrication for
 LIQUID METAL FAST BREEDER REACTOR - fuels development for, research progress on
 NEUTRONS - effects on oxide fuels
 PLUTONIUM NITRIDES - PuN--UN, fabrication of pellets and pins of
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on, effects of porosity on neutron
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on creep of
 REACTOR FUELS - development for advanced reactors, review of progress on
 REACTOR FUELS - radiation effects on oxide, neutron
 URANIUM NITRIDES - PuN--UN, fabrication of pellets and pins of
 URANIUM OXIDES UO₂ - radiation effects on niobium--zirconium alloy- or tungsten-clad, neutron
 URANIUM OXIDES UO₂ - radiation effects on, effects of porosity on neutron
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on, effects of porosity on neutron
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on creep of

- 304 26:20698 (WARD--4210-T-3-1) OXIDE FUEL ELEMENT DEVELOPMENT. Quarterly Progress Report for the Period Ending December 31, 1970. Anderson, C. A. Jr.; Bishop, E. C.; Boltax, A.; Ray, W. E. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Mar 1971. Contract AT(30-1)-4210. 158p. Dep. NTIS.

COMPUTER PROGRAMS - OLYMPUS-II, for calculation of EBR-II fuel pin burnup, p. 3-1
 COMPUTER PROGRAMS - CYGRO-F, for analysis of fuel operating parameters, p. 4-1
 COMPUTER PROGRAMS - COBRA, for fluid flow and thermodynamics calculations for LMFBR fuel element design, p. 7-2
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 REACTOR FUEL ELEMENTS - fabrication of mixed-oxide, quality control in, p. 14-1
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- 305 26:20792 CORROSION BEHAVIOR OF STRUCTURAL AND CAN MATERIALS OF FAST BREEDERS IN LIQUID SODIUM. Rettig, D. (Zentralinstitut fuer Kernforschung, Rossendorf, Ger.). Kernenergie; 14: No. 11, 349-56(Nov 1971). (In German).
- REACTOR FUEL ELEMENTS - cladding of, corrosion by liquid sodium
 REACTORS, BREEDER - cooling system for liquid sodium-cooled, corrosion behavior of
 REACTORS, LIQUID METAL-COOLED - cooling system for fast breeder, corrosion by sodium
 SODIUM - corrosive effects of liquid, on reactor structures and fuel cladding
- 306 26:20847 (BMI--1920) PROGRESS ON LMFBR CLADDING, STRUCTURAL, AND COMPONENT MATERIALS STUDIES DURING JULY--SEPTEMBER 1971. Quarterly Report. Keller, Donald L. (Battelle Columbus Labs., Ohio). Oct 1971. Contract W-7405-eng-92. 14p. Dep. NTIS.
- INCOLOY 800 - fatigue tests on, continuous cycling
 LIQUID METAL FAST BREEDER REACTOR - materials for, progress on development of cladding, component, and structural
 STAINLESS STEEL - fatigue tests on Types 304 and 316, continuous cycling
- 307 26:22184 (GEAP--13643) IMPLICATIONS OF NUCLEAR DATA UNCERTAINTIES TO LMFBR DESIGN. Greebler, P.; Hutchins, B. A.; Cowan, C. L. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Development Operation). [1972]. Contract AT(04-3)-189. 35p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - physics parameters for 300 MW(e) and 1000 MW(e), effects of nuclear data uncertainties on
 LIQUID METAL FAST BREEDER REACTOR - economics of 300 MW(e) and 1000 MW(e), effects of nuclear data uncertainties on
- 308 26:22189 TWO-DIMENSIONAL SHIELDING CALCULATIONS USING A COMBINATION OF DIFFUSION THEORY AND LINE-OF-SIGHT METHOD. Vossebrecker, H. (INTERATOM, Bensberg, Ger.). Atomkernenergie; 19: No. 1, 14-16(1972).
- KNK POWER REACTOR - shielding calculations for upper axial shield of, two-dimensional
 SHIELDING - calculations for KNK-II reactor, two-dimensional
- 309 26:22195 (RD/B/N--1999) PARTICULATE BEHAVIOUR IN A SODIUM LOOP; CHEMICAL AND METALLURGICAL OBSERVATIONS. Evans, H. E.; Channing, D. A.; Whitlow, W. H.; Sealey, R. (Central Electricity Generating Board, Berkeley (England). Berkeley Nuclear Labs.). Sep 1971. 23p. Dep. NTIS (U. S. Sales Only).
- LOOPS - deposits in liquid sodium cooled, composition and behavior of particle
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems of liquid sodium cooled, composition and behavior of particle deposits in, (E)
 SODIUM - flow of liquid, particle composition and behavior in
- 310 26:22198 CRITERIA FOR FAST BREEDER REACTOR CLADDING DESIGN. Shively, J. H.; Sayles, C. W.; Nathan, M. E. (North American Rockwell Corp., Canoga Park, Calif.). pp 66-75 of Applied Mechanics Aspects of Nuclear Effects in Materials. /Wan, Conrad C. (ed.). New York; American Society of Mechanical Engineers (1971). From Meeting on applied mechanics aspects of nuclear effects in materials; Washington, D. C. (2 Dec 1971).
- REACTOR FUEL ELEMENTS - cladding for fast breeder, failure and performance criteria for mechanical design of, (T)
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element cladding for sodium cooled, failure and performance criteria for mechanical design of, (T)
- 311 26:22210 RESEARCH PROGRAM FOR LMFBR SAFETY. Kelber, C. N.; Judd, A. M. (Argonne National Lab., Ill.). pp 509-23 of Dynamics of Nuclear Systems. /Hetrick, David L. (ed.). Tucson, Ariz.; Univ. of Arizona Press (1972). From Symposium on dynamics of nuclear systems; Tucson, Ariz. (23 Mar 1970).
- LIQUID METAL FAST BREEDER REACTOR - safety of, research program on
 LIQUID METAL FAST BREEDER REACTOR - research program for, summary of

- 312 26:22211 SODIUM BOILING TRANSIENTS LEADING TO DISASSEMBLY IN OXIDE-FUELED FAST REACTORS. MacFarlane, D. R. (Argonne National Lab., Ill.). pp 525-51 of Dynamics of Nuclear Systems. /Hetrick, David L. (ed). Tucson, Ariz.; Univ. of Arizona Press (1972). From Symposium on dynamics of nuclear systems; Tucson, Ariz. (23 Mar 1970).
- LIQUID METAL FAST BREEDER REACTOR - core disassembly in, analysis of reactivity and coolant flow coastdown transients leading to, (T)
 LIQUID METAL FAST BREEDER REACTOR - coolant flow accidents in, theoretical calculations of fluid flow and heat transfer transients leading to
 SODIUM - boiling in LMFBR coolant, effects on core disassembly of
- 313 26:22212 POWER PLANT WITH NUCLEAR REACTOR AND MHD SYSTEMS FOR GENERATING POWER. Radebold, Reinhart. British Patent 1,253,650. 17 Nov 1971. Priority date 16 Sep 1969, Germany.
- MAGNETOHYDRODYNAMIC GENERATORS - design characteristics of liquid metal cooled power reactors with
 REACTORS, LIQUID METAL-COOLED - power conversion system for, design characteristics of magnetohydrodynamic
 REACTORS, POWER - power conversion system for liquid metal cooled, design characteristics of magnetohydrodynamic
- 314 26:22240 (DOCKET-50016--150) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications, Change Requested. (Power Reactor Development Co., Detroit, Mich.). 8 Feb 1972. 2p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - building for, revised atmosphere requirements during maintenance below floor of
- 315 26:22241 (DOCKET-50016--151) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications Changes Requested, Below Floor Atmosphere and Syphon Breakers. (Power Reactor Development Co., Detroit, Mich.). 16 Feb 1972. 3p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - building for, revised atmosphere requirements during maintenance below floor of
 FERMI FAST BREEDER REACTOR - cooling system for, test requirements for syphon breakers of liquid sodium
- 316 26:22338 RADIOLOGICAL SAFETY AND SITE STUDIES. APPLICATION TO THE PHENIX REACTOR. Candes, P. (CEN de Saclay, Gif-sur-Yvette, France). Energ. Nucl. (Paris); 13: No. 5, 344-9(Sep-Oct 1971). (In French).
- PHENIX FAST REACTOR - site for, safety aspects for
 PHENIX FAST REACTOR - engineered safeguards for, design requirements for
 REACTORS, POWER - sites for, safety aspects of
 REACTORS, POWER - engineered safeguards for, design requirements for
- 317 26:22372 (DOCKET-50231--111) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Order Extending Provisional Operating License Date to September 4, 1973. (Division of Reactor Licensing (AEC), Washington, D. C.). 19 Jan 1972. 2p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operation of, extension of license expiration date for
- 318 26:22373 (DOCKET-50231--112) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change No. 10 Allowed. (Division of Reactor Licensing (AEC), Washington, D. C.). 28 Feb 1972. 12p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel element storage tank for, revised operating limits for irradiated
- 319 26:22393 (RDT-E--8-11-T(12-71)) FFTF CLOSED LOOP IN-REACTOR ASSEMBLY FABRICATION. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Dec 1971. 23p. RSO.

FAST FLUX TEST FACILITY - in-pile loop for, standard for fabrication of in-reactor assembly of
STANDARDS - FFTF closed loop in-reactor assembly fabrication

- 320 26:22395 (TID--25934) FINAL SOIL INVESTIGATION REPORT FOR THE FAST FLUX TEST FACILITY, RICHLAND, WASHINGTON. (Bechtel Corp., San Francisco, Calif.). Oct 1971. 195p. Dep. NTIS. For WADCO Corp., Richland, Wash.

FAST FLUX TEST FACILITY - site for, analysis of soil properties for
SOILS - properties of test reactor site

- 321 26:22405 (RDT-E--6-13-T(1-72)) CORE SUPPORT STRUCTURE FOR SODIUM COOLED REACTORS (FABRICATION ONLY). (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jan 1972. 22p. RSO.

REACTORS, LIQUID METAL-COOLED - core support structure for sodium cooled, standards for fabrication of
STANDARDS - core support structure for sodium cooled reactors

- 322 26:22406 (RDT-E--6-23-T(12-71)) CORE RADIAL SHIELD FOR SODIUM COOLED REACTORS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Dec 1971. 20p. RSO.

REACTORS, LIQUID METAL-COOLED - shielding for sodium cooled, standard for core radial
STANDARDS - core radial shield for sodium cooled reactors

- 323 26:22446 KINETICS MODEL FOR FAST REACTOR ANALYSIS IN TWO DIMENSIONS. Menely, D. A.; Leaf, G. K.; Lindeman, A. J.; Daly, T. A.; Sha, W. T. (Argonne National Lab., Ill.). pp 483-500 of Dynamics of Nuclear Systems. /Hetrick, David L. (ed). Tucson, Ariz.; Univ. of Arizona Press (1972). From Symposium on dynamics of nuclear systems; Tucson, Ariz. (23 Mar 1970).

LIQUID METAL FAST BREEDER REACTOR; REACTORS, FAST - safety analysis of, two-dimensional multigroup kinetics algorithm for

- 324 26:23213 (GEAP--13637) STEADY STATE AND DEFECTED FUEL IRRADIATION TESTING NEEDS. Meinhardt, W. G. (comp.) (General Electric Co., Sunnyvale, Calif. Breeder Reactor Development Operation). Sep 1970. Contract AT(04-3)-189. 129p. Dep. NTIS.

FAST FLUX TEST FACILITY; LIQUID METAL FAST BREEDER REACTOR - fuels for, testing requirements and recommendations for
REACTOR FUEL ELEMENTS - radiation testing of stainless steel-clad plutonium dioxide--uranium dioxide, requirements for defected and steady-state

- 325 26:23216 (RCN--158) PROGRESS REPORT OF THE MATERIALS DEPARTMENT, SECOND QUARTER 1971. Blackstone, R. (ed.) (Reactor Centrum Nederland, Petten). Nov 1971. 57p. Dep. NTIS (U. S. Sales Only).

ALUMINUM - radiation effects on microstructure of high-purity, fast neutron
GRAPHITE - radiation effects on, at high temperatures, in-pile
IRON; MOLYBDENUM - radiation effects on microstructure of high-purity, fast neutron
NEUTRONS, FAST - effects on helium content of Types 304 and 316 stainless steel
NEUTRONS, FAST - effects on microstructure of pure bcc metals
NEUTRONS, FAST - effects on dimensions of pyrolytic silicon carbide
NIOBIUM - radiation effects on microstructure of high-purity, fast neutron
NIOBIUM ALLOYS AND SYSTEMS - Nb--Zr-base, corrosion by pressurized water at 345°C
NIOBIUM ALLOYS AND SYSTEMS - Nb--Sn--Zr-base, corrosion by pressurized water at 345°C
REACTOR FUELS - dimensions of coated particulate, effects of thermal cycling on
REACTORS, FAST - fuel element cladding failure in sodium-cooled, research programs on
REACTORS, LIQUID METAL-COOLED - coolant loss in, research programs on
SILICON CARBIDES - radiation effects on dimensions of pyrolytic, fast neutron
STAINLESS STEEL - radiation effects on helium content of Types 304 and 316, fast neutron
TIN ALLOYS AND SYSTEMS - Nb--Sn--Zr-base, corrosion by pressurized water at 345°C
TUNGSTEN - radiation effects on microstructure of high-purity, fast neutron
URANIUM OXIDES UO₂ - fabrication of fuel pins of, electrolytic method for
URANIUM OXIDES UO₂ - radiation effects on fuel pins of, at 14.5 MWd/kg burnup
VANADIUM - radiation effects on microstructure of high-purity, fast neutron

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 ZIRCONIUM ALLOYS AND SYSTEMS - Nb--Zr-base, corrosion by pressurized water at 345°C
 ZIRCONIUM ALLOYS AND SYSTEMS - Nb--Sn--Zr-base, corrosion by pressurized water at 345°C

- 326 26:23219 (WARD--4210-T-3-10) OXIDE FUEL ELEMENT DEVELOPMENT. Quarterly Progress Report for the Period Ending September 30, 1971. Anderson, C. A. Jr.; Bishop, E. C.; Boltax, A.; Ray, W. E. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Oct 1971. Contract AT(30-1)-4210. 131p. Dep. NTIS.

COMPUTER PROGRAMS - MINIGRO, for analysis of fuel element lifetime, p.14-1
 COMPUTER PROGRAMS - CYGRO-F, for analysis of fuel pin cladding performance, p.14-1
 COMPUTER PROGRAMS - OLYMPUS-II, for analysis of FFTF fuel pin performance, p.15-1
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- 327 26:23307 PROCESSING STAINLESS STEEL TUBING FOR NUCLEAR REACTORS. Scharfstein, Lawrence R.; Wiese, Donald H. (Carpenter Tech. Corp., Reading, Pa.). Metal Progr.; 101: No. 3, 79-81(Mar 1972).

FAST FLUX TEST FACILITY - fuel elements for, fabrication of stainless steel cladding for
 STAINLESS STEEL - fabrication of fuel cladding of Type 316, for FFTF

- 328 26:23385 (DP--1273) IRRADIATION GROWTH OF EBR-II FUEL PINS. Sturcken, E. F.; Wicks, G. G. (Du Pont de Nemours (E. I.) and Co., Aiken, S. C. Savannah River Lab.). Dec 1971. Contract AT(07-2)-1. 33p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel pins for, in-pile radiation effects on growth of centrifugally-bonded
 NEUTRONS, PILE - effects on growth of centrifugally-bonded EBR-II fuel pins
 REACTOR FUEL ELEMENTS - radiation effects on growth of EBR-II centrifugally-bonded pin-type, in-pile

- 329 26:24739 PANEL DISCUSSION. THE FAST BREEDER PROGRAM: THE ACTIONS REQUIRED BY THE POWER INDUSTRY. Ramey, James T. (Atomic Energy Commission, Washington, D. C.). Proc. Amer. Power Conf.; 33: 48-64(1971). From 33. annual meeting on American Power Conference; Chicago, Ill. (20 Apr 1971).

LIQUID METAL FAST BREEDER REACTOR - development of, power industry views on

- 330 26:24740 DESCRIPTION OF 350-MWe LIQUID-METAL FAST BREEDER DEMONSTRATION PLANT. Fidrych, L. F. (General Electric Co., Sunnyvale, Calif.). Proc. Amer. Power Conf.; 33: 87-97(1971). From 33. annual meeting on American Power Conference; Chicago, Ill. (20 Apr 1971).

LIQUID METAL FAST BREEDER REACTOR - design parameters of 350 MW(e)

- 331 26:24742 WESTINGHOUSE LIQUID-METAL FAST BREEDER REACTOR DEMONSTRATION PLANT DESIGN. Jacobi, W. M. (Westinghouse Electric Corp., Madison, Pa.). Contract AT(30-1)-4200. Proc. Amer. Power Conf.; 33: 107-26(1971). From 33. annual meeting on American Power Conference; Chicago, Ill. (20 Apr 1971).

LIQUID METAL FAST BREEDER REACTOR - design parameters of 330 MW(e)

- 332 26:24743 ATOMICS INTERNATIONAL LMFBR DEMONSTRATION PLANT. Beeley, R. J.; Ash, E. B. (Atoms International, Canoga Park, Calif.). Proc. Amer. Power Conf.; 33: 127-35 (1971). From 33. annual meeting on American Power Conference; Chicago, Ill. (20 Apr 1971).

LIQUID METAL FAST BREEDER REACTOR - design parameters of 500 MW(e)

- 333 26:24749 (AI-AEC--13019) LMFBR PHYSICS PROGRAMS. Quarterly Technical Progress Report, October--December 1971. (Atoms International, Canoga Park, Calif.). 15 Feb 1971. Contract AT(04-3)-824. 43p. Dep. NTIS.

CRITICAL ASSEMBLIES - physics parameters of fast benchmark cores in, (E/T)
 CRITICAL ASSEMBLIES - neutron importance distribution in ECEL, axial fission, (E/T)
 CRITICAL ASSEMBLIES - core for ECEL, composition of mockup sodium cooled fast
 LIQUID METAL FAST BREEDER REACTOR - physics measurement programs during October to December 1971
 LIQUID METAL FAST BREEDER REACTOR - blankets for, neutron flux spectra through lower axial, (T)
 NEUTRON CROSS SECTIONS - calculations for fast assemblies, evaluation of EDF/B data for, (E/T)
 PLUTONIUM ISOTOPES Pu-239 - neutron cross sections in fast reactor spectra, Monte Carlo method analysis of
 REACTORS, FAST - physics calculations for, development of VIM computer program for TUNGSTEN; URANIUM ISOTOPES U-235 - neutron cross sections for, evaluation of ENDF/B data for, (E/T)
 URANIUM ISOTOPES U-238 - neutron cross sections in fast reactor spectra, Monte Carlo method analysis of

- 334 26:24755 (RT/ING--(71)16) SOME APPLICATIONS OF THE VARIATIONAL METHOD. Krajewski, B. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 18 Oct 1971. 28p. Dep. NTIS (U. S. Sales Only).

HEAT TRANSFER - calculations of liquid metal cooled reactor core, variational method for, (T)
 REACTORS, LIQUID METAL-COOLED - core of, variational method analysis of thermal hydraulics for, (T)

- 335 26:24756 (RT/ING--(71)17) FRETA (FAST REACTOR THERMAL ANALYSIS). IBM 7094 PROGRAM FOR CALCULATION OF THE THERMAL PROFILE IN A FUEL ROD OF A FAST REACTOR. Dominici, G. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 28 Oct 1971. 29p. (In Italian). Dep. NTIS (U. S. Sales Only).

COMPUTER PROGRAMS - FRETA, for temperature distribution in liquid sodium cooled fuel rods, FORTRAN 4 for IBM 7094
 REACTOR FUEL ELEMENTS - temperature distribution in liquid sodium cooled rod, computer program for calculation of
 REACTORS, FAST - fuel rods for liquid sodium cooled, computer program for calculation of temperature distribution in
 REACTORS, LIQUID METAL-COOLED - fuel rods for fast, computer program for calculation of temperature distribution in

- 336 26:24762 (KFK--1452) JACKET INSPECTION ON FUEL ELEMENTS OF NUCLEAR REACTORS. Jacobi, S.; Tradowsky, K. (Kernforschungszentrum, Karlsruhe (West Germany). Labor fuer Elektronik und Messtechnik). Oct 1971. 10p. (In German). Dep. NTIS (U. S. Sales Only).

REACTOR FUEL ELEMENTS - failure of, methods for detection of
 REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - fuel element failures in, methods for detection of

- 337 26:24772 EXPERIENCES AND PROBLEMS ON DESIGN AND CONSTRUCTION OF RADIATION SHIELDING. 4. RADIATION SHIELDING FOR FAST BREEDER REACTORS. Higashihara, Yoshiharu (Power Reactor and Nuclear Fuel Development Corp., Tokyo). Nippon Genshiryoku Gakkaishi; 13: No. 7, 400-8(Jul 1971). (In Japanese).

REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - shielding for sodium cooled, design and construction of

- 338 26:24777 SODIUM COOLING FOR FAST REACTORS. van der Laken, R. A. Atoomenergie Haar Toepass.; 13: 7-12(Jan 1971). (In Dutch).
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, thermal-hydraulic characteristics of
- 339 26:24779 MODULAR STEAM GENERATOR FOR THE LMFBR POWER PLANTS. McDonald, J. S.; Casey, D. F.; Morgan, W. T. (North American Rockwell Corp., Canoga Park, Calif.). Proc. Amer. Power Conf.; 33: 284-93(1971). From 33. annual meeting on American Power Conference; Chicago, Ill. (20 Apr 1971).
BOILERS - development of modular sodium heated steam generators
LIQUID METAL FAST BREEDER REACTOR - steam generators for, development of modular
- 340 26:24784 CLOSED FLUID SYSTEM PRESSURIZATION. Carlson, Roger D. (to United States Atomic Energy Commission). U. S. Patent 3,624,759. 30 Nov 1971. Filed 17 Feb 1970.
REACTORS, LIQUID METAL-COOLED - cooling systems for, system for pressurization of
- 341 26:24788 CONNECTOR ASSEMBLY. Kolb, Jack W.; Smith, Bob G. (to United States Atomic Energy Commission). U. S. Patent 3,635,793. 18 Jan 1972. Filed 7 Oct 1969.
FASTENERS - design characteristics of spring loaded, for liquid sodium cooled tube contained fuel elements
REACTOR FUEL ELEMENTS - fasteners for liquid sodium cooled tube contained, design characteristics of spring loaded
REACTORS, FAST - fuel elements for liquid sodium cooled, design characteristics of spring loaded fastener for tube contained
REACTORS, LIQUID METAL-COOLED - fuel elements for fast, design characteristics of spring loaded fastener for tube contained
- 342 26:24789 TRANSIENT EFFECT ON LMFBR FUEL RODS BY GAS BUBBLES ENTRAINED IN THE COOLANT. Carelli, Mario D.; Shoua, Ezra D. (Westinghouse Advanced Reactors Div., Madison, Pa.). Contract AT(30-1)-4135. Nucl. Eng. Des.; 17: No. 3, 322-8(1971).
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, effects of gas bubbles in coolant on, (T)
- 343 26:24791 PREDICTION OF MAXIMUM TEMPERATURE OR MELTING FRACTION IN A LMFBR FUEL ELEMENT. Thompson, D. H.; Marr, W. W. (Argonne National Lab., Ill.). Nucl. Eng. Des.; 17: No. 3, 361-70(1971).
FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - fuel elements for, prediction methods for maximum temperature in mixed oxide, (T)
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , temperatures in fuel elements of, effects of thermal conductivity, microstructure temperature boundaries, and density on predictions of maximum, (T)
REACTOR FUEL ELEMENTS - temperatures in mixed oxide, effects of thermal conductivity, microstructure temperature boundaries, and fuel density on predictions of maximum, URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , temperatures in fuel elements of, effects of thermal conductivity, microstructure temperature boundaries, and density on predictions of maximum, (T)
- 344 26:24794 COOLING OF EXPERIMENTAL SUBASSEMBLIES DURING REMOVAL FROM THE EBR-II REACTOR. Cushman, R. A.; Perry, W. H.; Sackett, J. E. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). pp 27-35 of Spent Nuclear Fuel Heat Transfer: Fuel Casks and Transfer Operations. /Groetch, D. J. (ed.). New York; American Society of Mechanical Engineers (1971). From Symposium on spent nuclear fuel heat transfer: fuel casks and transfer operations; Washington, D. C. (1 Dec 1971).
EXPERIMENTAL BREEDER REACTOR-II - fuel handling system of, irradiated driver fuel subassembly cooling by, (E/T)
- 345 26:24807 (ANL--7890) INTERACTION OF SODIUM WITH MOLTEN UO_2 AND STAINLESS STEEL USING A

DROPPING MODE OF CONTACT. Armstrong, D. R.; Testa, F. J.; Raridon, D. Jr. (Argonne National Lab., Ill.). Dec 1971. Contract W-31-109-eng-38. 23p. Dep. NTIS.

REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - safety of sodium cooled, effects of sodium reactions with molten uranium oxide (UO_2) and stainless steel on, (E)
 SODIUM - reactions with molten uranium oxide (UO_2) and stainless steel, pressures and forces from, (E)
 STAINLESS STEEL; URANIUM OXIDES UO_2 - reactions with sodium, pressures and forces from molten, (E)

- 346 26:24822 HEAT EXCHANGER USING THERMAL CONVECTION TUBES. France, David M.; Petrick, Mich (to United States Atomic Energy Commission). U. S. Patent 3,633,665. 11 Jan 1972. Filed 11 May 1970.

HEAT EXCHANGERS - design characteristics of thermal convection liquid--liquid, for two coolant region liquid sodium cooled breeder reactor
 REACTORS, BREEDER - heat exchanger for liquid sodium cooled, design characteristics of thermal convection
 REACTORS, LIQUID METAL-COOLED - heat exchanger for liquid sodium cooled breeder, design characteristics of thermal convection

- 347 26:24839 (DOCKET-50016--152) ENRICO FERMI ATOMIC POWER PLANT. Report for November 1971. (Power Reactor Development Co., Detroit, Mich.). 15 Mar 1972. 14p. (PRDC-EF--99). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during November 1971

- 348 26:24840 (DOCKET-50016--153) ENRICO FERMI ATOMIC POWER PLANT. Leak in Primary Sodium System. (Power Reactor Development Co., Detroit, Mich.). 22 Mar 1972. 5p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - cooling system of, leak in primary sodium
 FERMI FAST BREEDER REACTOR - cooling system of, welding repair to flange containment envelope

- 349 26:24865 UNITED STATES EXPERIENCE WITH FAST POWER REACTORS: FERMI 1. Branyan, Charles E.; Olson, William R. (Power Reactor Development Co., Newport, Mich.). Proc. Amer. Power Conf.; 33: 191-201(1971). From 33. annual meeting on American Power Conference; Chicago, Ill. (20 Apr 1971).

FERMI FAST BREEDER REACTOR - operation of, summary of

- 350 26:24870 (DOCKET-50016--154) ENRICO FERMI ATOMIC POWER PLANT. Technical Specifications, Request for Authorization of Change 29, Revision 1. (Power Reactor Development Co., Detroit, Mich.). 27 Mar 1972. 23p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - fuel element assemblies for, revised peak burnup limits for
 FERMI FAST BREEDER REACTOR - shutdown system for, connection of delayed neutron detector circuit to

- 351 26:24941 (ORNL-TM--3730) HETEROGENEITY EFFECTS IN THE ZPR-III ASSEMBLY 48 BY MONTE CARLO. Cramer, S. N. (Oak Ridge National Lab., Tenn.). 8 Mar 1972. 25p. Dep. NTIS.

CRITICAL ASSEMBLIES - physics parameters of ZPR-3 assembly 48, Monte Carlo analysis of heterogeneity effects on, (T)

- 352 26:24950 OBJECTIVES AND DESIGN OF THE FAST FLUX TEST FACILITY. Astley, E. R.; Finch, L. M.; Hofmann, P. L. (Battelle-Northwest, Richland, Wash.). Advan. Nucl. Sci. Technol.; 5: 1-50(1969).

FAST FLUX TEST FACILITY - development of, review of
 FAST TEST REACTOR - design parameters of, summary of

- 353 26:24959 (HEDL-TME--72-15) PROPOSAL TO IRRADIATE UNENCAPSULATED FUEL PINS IN THE EBR-II: SUBASSEMBLY NUMEC-E. Ballard, E. O.; Metcalf, I. L. (Hanford Engineering Development Lab., Richland, Wash.). Jan 1972. Contract AT(45-1)-2170. 50p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - fuel pin irradiation testing in, proposal for
unencapsulated FTR driver
FAST TEST REACTOR - fuel pins for, EBR-2 irradiation of unencapsulated driver
- 354 26:24960 (NYO--841-25) HARVARD AIR CLEANING LABORATORY SEMIANNUAL PROGRESS REPORT, MARCH 1, 1971-AUGUST 31, 1971. First, M. W.; Underhill, D. W.; Tadmor, J.; Hall, R. R.; Ratney, R. S.; Baldwin, T. W.; Moeller, D. W. (Harvard Univ., Boston, Mass. Harvard Air Cleaning Lab.). Nov 1971. Contract AT(30-1)-841. 42p. Dep. NTIS.
- CHARCOAL - sorption coefficients of activated, in reactor cover gas cleaning systems, (E)
FAST FLUX TEST FACILITY - loop cells of, sodium aerosol generation and removal in closed, (E)
FAST FLUX TEST FACILITY - coolant cover gas cleaning system for, performance of activated charcoal in, (E)
KRYPTON - sorption by activated charcoal in reactor cover gas cleaning systems, (E)
SODIUM - deposition on filters and finned coil coolers in reactor sodium loop cells, (E)
XENON - sorption by activated charcoal in reactor cover gas cleaning systems, (E)
- 355 26:24961 (RDT-E--6-33-T(11-71)) CONTROL ROD ASSEMBLY. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Nov 1971. 11p. RSO.
- FAST TEST REACTOR - control rod assemblies for, standards for
STANDARDS - FFTF control rod assembly
- 356 26:24968 (DOCKET-50231--113) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Decommissioning Plan and Technical Specifications, Proposed Change 10. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 10 Mar 1972. 85p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - decommissioning plan for
- 357 26:24969 (DOCKET-50231--115) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Eleventh Quarterly Plant Operation Report, November 1, 1971-January 31, 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 23 Mar 1972. 28p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operations during November 1971 to January 1972
- 358 26:24972 (DOCKET-50231--114) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Changes to Proposed Change 10. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 22 Mar 1972. 31p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - shutdown conditions for, revised technical specifications for
- 359 26:24986 (BARC/I--129) ANALYSIS OF ALKALI METAL COOLANTS. Periaswami, G.; Mathews, C. K. (Bhabha Atomic Research Centre, Bombay (India)). 1971. 43p. INIS.
- REACTORS, LIQUID METAL-COOLED - coolants for, methods for impurity monitoring in sodium
SODIUM - analysis for impurities in reactor cooling systems, methods of
- 360 26:25001 DETECTION OF RAPID ELECTRICAL CONDUCTIVITY FLUCTUATIONS IN HIGH TEMPERATURE LIQUID METALS. Hughes, G. (United Kingdom Atomic Energy Authority, Dounreay, Scotland). J. Phys., E (London); 5: No. 4, 349-52(Apr 1972).
- ELECTRIC CONDUCTIVITY - measurements in high temperature liquid metals, development of eddy current probe for
METALS - electric conductivity measurements in high temperature liquid, development of eddy current probe for
REACTORS, LIQUID METAL-COOLED - coolant for, eddy current probe for measurement of temperature fluctuations in

RHOMETERS - development of eddy current probe, for high temperature liquid metals

- 361 26:25028 HOT CHANNEL FACTOR AS DETERMINED BY THE PERMISSIBLE NUMBER OF HOT CHANNELS IN THE CORE. Arnsberger, P. L. (Westinghouse Electric Corp., Madison, Pa.); Mazumdar, M. Nucl. Sci. Eng.; 47: No. 1, 140-9(Jan 1972).

LIQUID METAL FAST BREEDER REACTOR; REACTORS - cores of, correlated temperatures method for calculation of hot channel factor for

- 362 26:25407 FLOW-SHEET STUDIES ON REPROCESSING OF JAPAN EXPERIMENTAL FAST REACTOR FUEL IN A PUREX PLANT. Segawa, T.; Hoshino, T.; Kaya, A.; (and others) (Power Reactor and Nuclear Fuel Development Corp., Tokai, Japan). pp 160-73 of Proceedings of the International Solvent Extraction Conference. Vol. I and II. London; Society of Chemical Industry (1971). From International solvent extraction conference; The Hague, Netherlands (19 Apr 1971). See CONF-710417--(Vol.1 and 2).

JAPANESE EXPERIMENTAL FAST REACTOR - fuels for, flowsheet studies of Purex plant for reprocessing of
 URANIUM - reprocessing of Magnox-clad fuels of, for JEFR, flowsheet studies of Purex plant for
 URANIUM OXIDES UO_2 - reprocessing of stainless steel- or Zircaloy-clad fuels of, for JEFR, flowsheet studies of Purex plant for

- 363 26:25442 DETECTING ONSET OF BOILING IN A LIQUID. (to Siemens Aktiengesellschaft). British Patent 1,260,792. 19 Jan 1972. Priority date 1 Mar 1969, Germany.

BOILING - onset in liquid-metal coolant, detection of
 LIQUIDS - boiling of, design of equipment for detection of
 REACTORS, LIQUID METAL-COOLED - coolant boiling in, design of equipment for detection of

- 364 26:25443 HEAT EXCHANGER FOR PRODUCTION OF STEAM. Lievense, Kornelis (to Nederlandse Organisatie Voor Toegepast -Natuurwetenschappelijk Onderzoek Ten Behoeve Van Nijverheid, Handel En Verkeer). British Patent 1,262,377. 2 Feb 1972. Priority date 30 May 1968, Netherlands.

HEAT EXCHANGERS - design of liquid metal, with thermal barrier
 REACTORS, LIQUID METAL-COOLED - heat exchanger for, design of

- 365 26:25451 DEVELOPMENT OF MECHANICAL PUMPS FOR SODIUM. Taka, Shusei (Ebara Mfg. Co. Ltd., Tokyo). FAPIG (Tokyo); No. 62, 95-9(Aug 1971). (In Japanese).

PUMPS (LIQUID METAL) - development and performance testing of centrifugal sodium

- 366 26:25567 ENVIRONMENTAL RADIOACTIVITY IN MICHIGAN, 1970. Wieder, Samuel (Environmental Protection Agency, Washington, D. C.); Logsdon, Joe E.; Froom, Charles P. Radiat. Data Rep.; 13: No. 1, 3-18(Jan 1972).

ATMOSPHERE - radioisotope content of, near Big Rock Point Reactor during 1970
 ATMOSPHERE - radiation monitoring in, near Enrico Fermi-1 Reactor during 1970
 ATMOSPHERE - radiation monitoring in, near Palisades Power Reactor during 1970
 ATMOSPHERIC PRECIPITATION - radioisotope content of, near Big Rock Point Reactor during 1970
 ATMOSPHERIC PRECIPITATION - radiation monitoring in, near Enrico Fermi-1 Reactor during 1970
 ATMOSPHERIC PRECIPITATION - radiation monitoring in, near Palisades Power Reactor during 1970
 BETA SOURCES - monitoring in environs of Palisades Power Reactor during 1970
 BIG ROCK POINT POWER REACTOR - radiation monitoring in environs of, during 1970
 BIG ROCK POINT POWER REACTOR - radioactive waste discharges from, during 1970
 CESIUM ISOTOPES Cs-137 - content in milk in Michigan cities during 1970
 ENVIRONMENT - radiation monitoring in Michigan, during 1970
 FERMI FAST BREEDER REACTOR - radiation monitoring in environs of, during 1970
 MICHIGAN - radiation monitoring of environment in, during 1970
 MILK - radioisotope content of, near Enrico Fermi-1 Reactor during 1970
 MILK - radiation monitoring in, near Palisades Power Reactor during 1970
 MILK - radioisotope content of Michigan, during 1970, cesium-137 and strontium-90

OSTEICHTHYES - radioisotope content of, near Big Rock Point Reactor during 1970
 OSTEICHTHYES - radioisotope content of, near Enrico Fermi-1 Reactor during 1970
 OSTEICHTHYES - radioisotope content of, near Palisades Power Reactor during 1970
 PALISADES POWER REACTOR - radiation monitoring in environs of, during 1970
 RADIATION MONITORING - programs for environmental, in Michigan during 1970
 RADIOACTIVE WASTE - discharge from Big Rock Point Power Reactor during 1970
 RADIOISOTOPES - content in atmosphere, atmospheric precipitation, bottom sands, fish, and waters near Big Rock Point Reactor during 1970
 SANDS - radioisotope content of, near Big Rock Point Reactor during 1970
 SILTS - radioisotope content of, near Palisades Power Reactor during 1970
 STRONTIUM ISOTOPES Sr-90 - content in milk in Michigan cities during 1970
 SURFACE WATERS; SURFACE WATERS - radioisotope content of, near Big Rock Point Reactor during 1970
 SURFACE WATERS - radioisotope content of, near Enrico Fermi-1 Reactor during 1970
 SURFACE WATERS - radiation monitoring in, near Palisades Power Reactor during 1970
 WATER SUPPLIES - radioisotope content of, near Enrico Fermi-1 Reactor during 1970
 WATER SUPPLIES - radioisotope content of, near Palisades Power Reactor during 1970

367 26:25568 SUMMARY OF ENVIRONMENTAL RADIATION SURVEILLANCE ACTIVITIES IN ARKANSAS. Sheets, Burvie H.; Oates, William H. Jr.; Snellings, David D. Jr.; Wilson, E. Frank (Arkansas State Dept. of Health, Little Rock). Radiat. Data Rep.; 13: No. 1, 19-26(Jan 1972).

ANGIOSPERMIDAE - radioisotope content of, near SEFOR and Arkansas-1 Reactors during 1966 to 1971
 ARKANSAS - radiation monitoring of environment in, during 1966 to 1971
 ARKANSAS NUCLEAR ONE POWER REACTOR - radiation monitoring in environs of, during 1966 to 1971
 ATMOSPHERE - radioisotope content of, near SEFOR and Arkansas-1 Reactors during 1966 to 1971
 ENVIRONMENT - radiation monitoring in Arkansas, during 1966 to 1971
 MILK - radioisotope content of, near SEFOR and Arkansas-1 Reactors during 1966 to 1971
 RADIATION MONITORING - programs for environmental, in Arkansas during 1966 to 1971
 RADIOISOTOPES - content in atmosphere, grass, milk, silt, soil, and surface waters at SEFOR and Arkansas-1 Reactor Sites during 1966 to 1971
 SILTS; SOILS - radioisotope content of, near SEFOR and Arkansas-1 Reactors during 1966 to 1971
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - radiation monitoring in environs of, during 1966 to 1971
 SURFACE WATERS - radioisotope content of, near SEFOR and Arkansas-1 Reactors during 1966 to 1971

368 26:25997 (AI-AEC--13021) FUELS, MATERIALS, COOLANT CHEMISTRY, AND FUEL HANDLING PROGRAMS. Quarterly Technical Progress Report, October--December 1971. (Atoms International, Canoga Park, Calif.). 15 Feb 1972. Contract AT(04-3)-824. 91p. Dep. NTIS.

CHROMIUM - friction and wear of, sliding against refractory alloys in liquid sodium
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, radiation effects on helium content of, in-pile
 CHROMIUM CARBIDES - Cr_3C_2 --Ni, friction and wear of, sliding against refractory alloys in liquid sodium
 FAST FLUX TEST FACILITY - components and materials for, development of
 HASTELLOY C; INCONEL 718 - friction and wear of, sliding against refractory alloys in liquid sodium
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 LIQUID METAL FAST BREEDER REACTOR - components and materials for, development of
 NICKEL ALLOYS AND SYSTEMS - Cr_3C_2 --Ni, friction and wear of, sliding against refractory alloys in liquid sodium
 PROTONS - effects on void distribution in Type 316 stainless steel
 SODIUM - cleaning and requalification of reactor coolant, development of methods for
 SODIUM OXIDES - deposition on FFTF cooling system surfaces, model for
 STAINLESS STEEL - friction and wear of, sliding against refractory alloys in liquid sodium
 STAINLESS STEEL - radioinduced void formation in Type 316, at 600°C, proton
 STAINLESS STEEL - radioinduced void formation in titanium-modified Type 316, at 600°C, proton
 STAINLESS STEEL - radioinduced swelling of Type 316 and 405, relations of cold work and microstructure with in-pile
 STAINLESS STEEL - radiation effects on tensile properties of Type 316, in-pile
 STAINLESS STEEL - radiation effects on helium content of Types 304, 316, and 405, in-pile
 TANTALUM - properties for use in LMFBR control rods
 TITANIUM ALLOYS AND SYSTEMS - Ti--V-base, radiation effects on helium content of, in-pile
 TITANIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, radiation effects on helium content of, in-pile
 TITANIUM CARBIDES - friction and wear of, sliding against refractory alloys in liquid

sodium

TRAPS - development and testing of sodium vapor, for FFTF

TZM (MOLYBDENUM ALLOY) - friction and wear of, sliding against refractory alloys in liquid sodium

VANADIUM ALLOYS AND SYSTEMS - Ti--V-base, radiation effects on helium content of, in-pile

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26:25998 (BNWL--668) REACTOR FUELS AND MATERIALS DEVELOPMENT PROGRAMS FOR FUELS AND MATERIALS BRANCH OF USAEC DIVISION OF REACTOR DEVELOPMENT AND TECHNOLOGY. Quarterly Progress Report, October--December 1967. Cadwell, J. J.; de Halas, D. R.; Nightingale, R. E.; Worlton, D. C. (Battelle-Northwest, Richland, Wash. Pacific Northwest Lab.). Mar 1968. Contract AT(45-1)-1830. 193p. Dep. NTIS.

ADVANCED TEST REACTOR - gas loop for, development of

CALCIUM FLUORIDES - microstructure of powders and pellets of sintered

CRYSTALS - radioinduced defects in, computer simulation of neutron

EDDY CURRENT TESTING - method for reactor fuels, development of

ENGINEERING TEST REACTOR - irradiation facilities in, operation of

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IRON - aging mechanisms in low-carbon, analysis of

IRON - radiation effects on slip in, fast neutron

IRON ISOTOPES Fe-54 - neutron reactions (n,p), cross section evaluation for fast reactor dosimetry

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MOLYBDENUM - corrosion by gases in ATR model loop

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NIOBIUM - corrosion by gases in ATR model loop

NIOBIUM ALLOYS AND SYSTEMS - Nb-base--Zr, corrosion by pH 10 ammoniated water at 280°C, rates of

NIOBIUM ALLOYS AND SYSTEMS - Nb--Zr-base, radiation effects on creep and tensile properties of, in-pile

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PLUTONIUM NITRIDES - PuN--UN, preparation by carbothermic reduction on tungsten supported particle-bed systems

PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, microstructure of solid solutions of, electron microscopy studies of

RADIATION DETECTORS, ACTIVATION - performance of multi-foil, for measurement of fast reactor neutron spectra

REACTOR FUEL ELEMENTS - radiation effects on dimensional stability of

thorium--uranium--Zircaloy, relations with burnup

REACTOR FUEL ELEMENTS - radiation effects on dimensional stability of hollow-core uranium, relations with burnup

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STAINLESS STEEL - radiation effects on tensile properties of sodium-encapsulated specimens of Types 304 and 316, in-pile

STAINLESS STEEL - compatibility of Type 304, with bonded plutonium nitride--uranium nitride fuels at 650 to 1000°C

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TANTALUM - corrosion by pH 10 ammoniated water at 280°C, rates of

TANTALUM - corrosion by gases in ATR model loop

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TITANIUM; TZM (MOLYBDENUM ALLOY) - corrosion by pH 10 ammoniated water at 280°C, rates of

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URANIUM NITRIDES - PuN--UN, preparation by carbothermic reduction on tungsten supported particle-bed systems

URANIUM OXIDES UO₂ - microstructure and fission product distribution in fuels of, effects of post melt cooling rates on

URANIUM OXIDES UO₂ - PuO₂--UO₂, microstructure of solid solutions of, electron microscopy studies of

URANIUM OXYCARBIDES - electric conductivity at 1500°C

VANADIUM - creep at high temperatures, research programs on

- WATER VAPOR - radioinduced reactions with graphite, gamma
 ZIRCALLOY-2 - analysis of oxidized specimens of, for hydrogen, effects of degreasing on
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 ZIRCALLOY-2 - radiation effects on creep of cold-worked, in-pile
 ZIRCONIUM ALLOYS AND SYSTEMS - Nb-base--Zr, corrosion by pH 10 ammoniated water at 280°C,
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 ZIRCONIUM ALLOYS AND SYSTEMS - Nb--Zr-base, radiation effects on creep and tensile
 properties of, in-pile
 ZIRCONIUM OXIDES - phase changes in, at high pressures, x-ray studies of
- 370   26:26055 (BMI--1922) PROGRESS ON LMFBR CLADDING, STRUCTURAL, AND COMPONENT MATERIALS
 STUDIES DURING OCTOBER THROUGH DECEMBER 1971. Keller, Donald L. (Battelle Columbus Labs.,
 Ohio). Jan 1972. Contract W-7405-eng-92. 35p. Dep. NTIS.
- INCOLOY 800 - tensile properties of, at 70 to 1200°F
 LIQUID METAL FAST BREEDER REACTOR - materials for, research progress on cladding,
 component, and structural
 STAINLESS STEEL - fatigue properties of Type 316, effects of aging and hold time on
 STAINLESS STEEL - tensile properties of Types 304 and 316, at 70 to 1200°F
- 371   26:27378 APPLICATION OF ENERGY MODAL SYNTHESIS TO FAST REACTOR BURNUP CALCULATION.
 Kiguchi, Takashi (Atomic Energy Research Lab., Kawasaki, Japan). J. Nucl. Sci. Technol.
 (Tokyo); 9: No. 3, 143-56(Mar 1972).
- REACTOR FUELS - burnup of liquid sodium cooled fast breeder, energy modal synthesis method
 for calculation of, (T)
 REACTORS, BREEDER - fuel burnup in liquid sodium cooled fast, energy modal synthesis
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 REACTORS, FAST - fuel burnup in liquid sodium cooled breeder, energy modal synthesis
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 REACTORS, LIQUID METAL-COOLED - fuel burnup in fast breeder, energy modal synthesis method
 for calculation of, (T)
- 372   26:27385 (ORNL-TM--3746) FAST REACTOR SHIELDING MONTHLY PROGRESS REPORT FOR JANUARY
 1972, 189A NO. 10028, ACTIVITY NO. 40 01 61. Mynatt, F. R.; Gritzner, M. L.; Maerker, R.
 E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). 25 Feb 1972. Contract
 W-7405-eng-26. 58p. Dep. NTIS.
- FAST TEST REACTOR - neutron flux in cavity and vessel support system of, (T)
 LIQUID METAL FAST BREEDER REACTOR - coolant of, neutron shielding effects of sodium, (E/T)
 NEUTRONS - attenuation in liquid sodium, (E/T)
 SODIUM - neutron attenuation in, (E/T)
 TOWER SHIELDING FACILITY - pipe chase mockup in, neutron streaming in, (E/T)
- 373   26:27387 (WARD--3045-T-4-A-1) RADIAL BLANKET AND SHIELD SIMULATION EXPERIMENTS. First
 Quarterly Progress Report for Period Ending December 31, 1971. Dyos, M. W. (Westinghouse
 Electric Corp., Madison, Pa. Advanced Reactors Div.). Feb 1972. Contract AT(11-1)-3045.
 23p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - shielding for, calculations and design parameters for
 simulation of
 NEUTRONS - flux distribution in liquid metal cooled fast breeder reactor shielding,
 calculation of
 SHIELDING - simulation of liquid metal cooled fast breeder reactor, calculations and
 design parameters for
- 374   26:27389 IMPROVEMENTS IN ELECTROCHEMICAL CARBON METER. (to United Nuclear Corp.).
 British Patent 1,261,845. 26 Jan 1972. Priority date 14 Apr 1969, United States.
- CARBON - monitoring in liquid metal cooled fast reactor cooling systems, design
 characteristics of electrochemical meter for
 GAGES AND METERS - design characteristics of electrochemical, for monitoring carbon in
 liquid metal cooled fast reactor cooling system
 REACTORS, FAST - cooling system for liquid metal cooled, design characteristics of
 electrochemical meter for monitoring carbon in
 REACTORS, LIQUID METAL-COOLED - cooling system for fast, design characteristics of
 electrochemical meters for monitoring carbon in

- 375 26:27390 IMPROVEMENTS IN AND RELATING TO SEALING DEVICES. (to Maschinenfabrik Andritz Aktiengesellschaft). British Patent 1,266,258. 8 Mar 1972. Priority date 31 Mar 1969, Austria.
- PUMPS - seals for liquid cooled reactors, design characteristics of shaft
 REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - pumps for, design characteristics of shaft seals for coolant
 SEALS AND GLANDS - design characteristics of pump shaft
- 376 26:27396 (HEDL-TME--72-23) EXPERIMENTAL TEMPERATURE DISTRIBUTIONS IN LIQUID METAL FAST BREEDER REACTOR FUEL ASSEMBLIES, THE EFFECT OF BOWING DISTORTIONS. Collingham, R. E.; Yatabe, J. M.; Hill, V. R.; Thorne, W. L. (Hanford Engineering Development Lab., Richland, Wash.). Feb 1972. Contract AT(45-1)-2170. 24p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel element assemblies for, effects of bowing distortions on temperature distribution in bundles of, (E)
 REACTOR FUEL ELEMENTS - hot spots in liquid metal cooled bundles of rod, effects of bowing distortions on, (E)
 REACTOR FUEL ELEMENTS - dimensional stability of liquid metal cooled bundles of rod, effects on temperature distribution of
- 377 26:27400 (TID--25935) INTERRELATIONSHIP BETWEEN FUEL TEMPERATURE AND CLADDING STRAIN HISTORIES. Biancheria, A.; Harbourne, B. L.; Boltax, A. (Westinghouse Electric Corp. [Madison, Pa.]). [1972]. Contract AT(11-1)-3045. 4p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, effects on cladding deformation of temperature history of, (T)
 REACTOR FUEL ELEMENTS - cladding deformation of liquid metal cooled, effects of temperature history on, (T)
- 378 26:27401 (TUBIK--23) TWO-DIMENSIONAL MULTIREGION ANALYSIS OF TEMPERATURE FIELDS IN FINITE ROD BUNDLES COOLED BY LIQUID METALS. Wolf, L.; Johannsen, K. (Technische Universitaet, Berlin (West Germany). Institut fuer Kerntechnik). Sep 1971. 26p. (CONF-710903--9). Dep. NTIS (U. S. Sales Only). From 1. international conference on structural mechanics in reactor technology; Berlin, Germany (20 Sep 1971).
- REACTOR FUEL ELEMENTS - temperature distribution in bundles of liquid metal cooled rod, effects of configuration on
 REACTOR FUEL ELEMENTS - heat transfer characteristics of bundles of liquid metal cooled rod, effects of configuration on
 REACTORS, FAST - fuel elements for liquid metal cooled, effects of configuration on temperature distribution and heat transfer characteristics for bundles of
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast, effects of configuration on temperature distribution and heat transfer characteristics for bundles of
- 379 26:27404 (ANL/EBR--17) CONCEPTUAL SYSTEM DESIGN DESCRIPTION OF THE SYSTEM FOR EMERGENCY REMOVAL OF EBR-II INSTRUMENTED SUBASSEMBLIES (INSER). EBR-II Project. Elias, P.; Hutter, E.; Seim, O. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Oct 1971. Contract W-31-109-eng-38. 39p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - instrumented subassemblies for, system for emergency removal of
- 380 26:27409 (EURFNR--991) FAST REACTOR PROGRAMME. Combined Second and Third Quarters Progress Report, 1971. Hoekstra, E. K. (comp.) (Reactor Centrum Nederland, Petten). Jan 1972. 158p. (RCN--164). Dep. NTIS (U. S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.
- AEROSOLS - distribution in fast reactors following accidents
 CRITICAL ASSEMBLIES - physics measurements on fast core zones in STEK
 REACTOR FUEL ELEMENTS - cladding materials for fast, development of
 REACTOR FUELS - development of fast
 REACTORS, FAST - development of sodium cooled, during April to September 1971
 REACTORS, FAST - physics parameters of, effects of fission products on
 REACTORS, FAST - fuels for, development of
 REACTORS, FAST - fuel elements for, properties of cladding materials for
 REACTORS, FAST - cores for sodium cooled, thermal-hydraulics characteristics of
 REACTORS, FAST - accidents in, formation and behavior of aerosols following

REACTORS, LIQUID METAL-COOLED - development of sodium cooled, during April to September 1971
SODIUM - analysis of liquid, for metal impurities

- 381 26:27412 (ORNL-TM--3670) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR NOVEMBER--DECEMBER 1971. Cottrell, Wm. B. (Oak Ridge National Lab., Tenn.). Mar 1972. Contract W-7405-eng-26. 158p. Dep. NTIS.
- FISSION PRODUCTS - release from coated particle fuels, effects of postirradiation annealing on, (E)
FISSION PRODUCTS - distribution in cooling systems of HTGR-type reactors, (E)
GRAPHITE - corrosion of H327, by high temperature steam, (E)
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INFORMATION CENTERS - operation of Nuclear Safety, during November and December 1971
IODINE - desorption from iron oxides, effects of temperature on, (E)
IRON OXIDES Fe_3O_4 - iodine desorption from, effects of temperature on, (E)
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PRESSURE VESSELS - fracture of heavy section steel, effects of flaw growth and propagation on, (e)
PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)
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REACTOR FUEL ELEMENTS - heat transfer in water cooled, effects of coolant loss conditions on, (T)
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REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly heat transfer characteristics during, (T)
REACTORS, WATER-COOLED - standards for, development of engineering
STANDARDS - development of reactor engineering, during November and December 1971
STEAM - corrosive effects on H327 graphite, (E)
VALVES - design criteria for nuclear service, development program for
- 382 26:27423 (STI/PUB--296) DIRECTORY OF NUCLEAR REACTORS. VOL. IX. POWER REACTORS (SUPPLEMENT TO VOLS IV AND VII). (International Atomic Energy Agency, Vienna (Austria)). Oct 1971. 245p. IAEA \$8.00.
- REACTORS, BOILING; REACTORS, GAS-COOLED; REACTORS, HEAVY WATER-MODERATED; REACTORS, LIQUID METAL-COOLED - list of worldwide power, revised
REACTORS, POWER - list of worldwide, revised
REACTORS, PRESSURIZED-WATER - list of worldwide power, revised
- 383 26:27556 (CNLM--4373) [PRELIMINARY COST ESTIMATES OF REACTOR DEVELOPMENT, 1964--1968]. Doll, W. (Pratt and Whitney Aircraft, Middletown, Conn. Connecticut Advanced Nuclear Engineering Lab.). 4 Jan 1963. 3p. Dep. NTIS. Declassified 3 Nov 1971.
- LITHIUM-COOLED REACTOR EXPERIMENT; REACTORS, AIRCRAFT; SYSTEMS FOR NUCLEAR AUXILIARY POWER (SNAP-50) - development of, cost estimates for
- 384 26:27562 (ANL--7882) EXPERIMENTAL RESULTS FOR ZPR-3 ASSEMBLIES 53 AND 54. Kaiser, R. E.; Gasidlo, J. M.; Lehto, W. K.; Maddison, D. W.; Vosburgh, R. D.; Mountford, L. A. (Argonne National Lab., Ill.). Nov 1971. Contract W-31-109-eng-38. 58p. Dep. NTIS.
- CRITICAL ASSEMBLIES - physics parameter measurements in ZPR-3 Assemblies 53 and 54
LIQUID METAL FAST BREEDER REACTOR - physics parameters of core mockups for, (E)
- 385 26:27573 (DOCKET-50231--116) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change 11. (Division of Reactor Licensing (AEC), Washington, D. C.). 11 Apr 1972. 8p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel element storage tanks for, revised operating conditions and limits for irradiated

- 386 26:27582 DYNAMIC SEAL. Ripley, Charles C. (to United States Atomic Energy Commission). U. S. Patent 3,640,845. 8 Feb 1972. Filed 9 Jul 1968.

REACTOR CONTROL ELEMENTS - drives for liquid metal cooled, dynamic seal for
REACTORS, LIQUID METAL-COOLED - control rod drives for, dynamic seal for
SEALS AND GLANDS - design of dynamic, with liquid actuated free floating piston

- 387 26:27737 (EUR--4778) DETERMINATION OF THE ^{235}U , ^{239}Pu , AND ^{240}Pu CONTENTS IN MIXED FISSILE MATERIALS BY MEANS OF ACTIVE AND PASSIVE NEUTRON TECHNIQUES. Birkhoff, G.; Bondar, L.; Ley, J. (European Atomic Energy Community, Ispra (Italy). Joint Nuclear Research Center). 1972. 30p. Dep. NTIS (U. S. Sales Only). EUR B.Fr. 50.-.

CADARACHE REACTORS (RAPSODIE) - fuel pins for, active and passive neutron techniques for determination of plutonium-239, plutonium-240, and uranium-235, in
PLUTONIUM ISOTOPES Pu-239; PLUTONIUM ISOTOPES Pu-240 - determination in fuels by active and passive neutron techniques
REACTOR FUELS - analysis for plutonium-239, plutonium-240, and uranium-235 by active and passive neutron techniques
URANIUM ISOTOPES U-235 - determination in fuels by active and passive neutron techniques

- 388 26:27974 (ANL--7775, pp 15-36) FUEL CYCLE TECHNOLOGY. Webster, D. S.; Simmons, J. W. (Argonne National Lab., Ill.). Apr 1971. In Chemical Engineering Division annual report, 1970.

IODINE - retention of fission product, in pyrochemical head-end process of reprocessing of LMFBR fuels, p. 21-22
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- 389 26:27975 (ANL--7871) CHEMICAL ENGINEERING DIVISION FUEL CYCLE TECHNOLOGY QUARTERLY REPORT, JULY--SEPTEMBER 1971. Webster, D. S.; Jonke, A. A.; Bernstein, G. J.; Levitz, N. M.; Pierce, R. D.; Steindler, M. J.; Vogel, R. C. (Argonne National Lab., Ill.). Dec 1971. Contract W-31-109-eng-38. 55p. Dep. NTIS.

CENTRIFUGES - development for plutonium separation in Purex Process
LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, head-end liquid zinc decladding process in
PLUTONIUM - determination in PuO_2 -- UO_2 fuels by x-ray fluorescence methods, in-line
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PLUTONIUM - reduction in Purex Process, electrolytic
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REACTOR FUELS - separation of plutonium from irradiated oxide, adaptation of centrifugal contactors for
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denitration of plutonium nitrate--uranyl nitrate systems
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 ZINC - solvent properties for stainless steel

- 390 26:27994 STRUCTURAL TESTING FACILITIES FOR SODIUM MACHINERY AND EQUIPMENT. Yoshitoshi, Shoji (Kawasaki Heavy Industries, Ltd., Kobe, Japan). FAPIG (Tokyo); No. 61, 20-4(May 1971). (In Japanese).
- LOOPS - design of sodium, for testing fast breeder reactor components
 REACTORS, BREEDER; REACTORS, FAST - components for, design of sodium loop for testing
- 391 26:27999 DYNAMIC ANALYSIS OF PLANT CHARACTERISTICS ON A TEST ESTABLISHMENT OF A 50 MW SODIUM-HEATED STEAM GENERATOR. Takitani, Koichi; Sasaki, Takashi (Kawasaki Heavy Industries, Ltd., Kobe, Japan). FAPIG (Tokyo); No. 61, 8-13(May 1971). (In Japanese).
- BOILERS - operation and performance sodium-heated
 REACTORS, BREEDER; REACTORS, FAST - steam generators for 50 MW sodium-cooled, performance analysis of
- 392 26:28159 NOTE ON DETECTABILITY ENHANCEMENT OF WEAK NEUTRON BURST SIGNALS THROUGH MULTIPLICATION. Porges, K. G. (Argonne National Lab., Ill.). Nucl. Technol.; 14: No. 2, 194-6(May 1972).
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, signal enhancement monitoring of delayed neutrons for detection of failed
 NEUTRONS, DELAYED - detection in reactor cooling systems, multiplication method for signal enhancement for
- 393 26:28536 (ANL/EBR--51) PREIRRADIATION CHARACTERIZATION OF B_4C PELLETS USED IN EXPERIMENTS ON HIGH-WORTH CONTROL RODS. EBR-II Project. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Jan 1972. Contract W-31-109-eng-38. 21p. Dep. NTIS.
- BORON CARBIDES - properties of hot pressed pellets of B_4C , chemical, physical, and microstructural
 EXPERIMENTAL BREEDER REACTOR-II - control rods for, preparation of boron carbide pellets for
- 394 26:28539 (BMI--1923) PROGRESS ON DEVELOPMENT OF FUELS AND TECHNOLOGY FOR ADVANCED REACTORS DURING OCTOBER THROUGH DECEMBER, 1971. Quarterly Report. Keller, Donald L. (Battelle Columbus Labs., Ohio). Jan 1972. Contract W-7405-eng-92. 77p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - fuels for, quality control in fabrication of
 LIQUID METAL FAST BREEDER REACTOR - fuel element for, development and testing of ceramic
 PLUTONIUM NITRIDES - PuN -- UN , preparation of clad fuel pellets of, methods for quality control in
 PLUTONIUM NITRIDES - PuN -- UN , performance of fuels of, evaluation of TREAT
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on stability of encapsulated fuels of, at 1200 to 1900°C, in-pile
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 URANIUM NITRIDES - PuN -- UN , performance of fuels of, evaluation of TREAT
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 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on stability of encapsulated fuels of, at 1200 to 1900°C, in-pile
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on creep of encapsulated fuels of, measurement of compressive in-pile
- 395 26:28547 (WARD--4210-T-3-3) OXIDE FUEL ELEMENT DEVELOPMENT. Quarterly Progress Report

for the Period Ending March 31, 1971. Anderson, C. A. Jr.; Bishop, E. C.; Boltax, A.; Ray, W. E. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Jun 1971. Contract AT(30-1)-4210. 185p. Dep. NTIS.

COMPUTER PROGRAMS - OLYMPUS-II, for analysis of fuel element swelling
 COMPUTER PROGRAMS - CYGRO-F, for analysis of fuel element swelling and cladding strain
 EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, fabrication of grid-type
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, design, development, and testing of grid-type
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 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , properties of pellets and powders of, chemical, physical, and microstructural
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 REACTOR FUEL ELEMENTS - design of WSA-4 grid-type, for irradiation testing
 REACTOR FUELS - radiation effects on mixed-oxide encapsulated pellets of, in subassembly WSA-5, in-pile
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 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , properties of pellets and powders of, chemical, physical, and microstructural

- 396 26:28548 (WARD--4210-T-3-8) OXIDE FUEL ELEMENT DEVELOPMENT QUARTERLY PROGRESS REPORT FOR THE PERIOD ENDING JUNE 30, 1971. Anderson, C. A. Jr.; Bishop, E. C.; Boltax, A.; Ray, W. E. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Contract AT(30-1)-4210. 150p. Dep. NTIS.

COMPUTER PROGRAMS - OLYMPUS-II, for analysis of FFTF fuel pin performance
 COMPUTER PROGRAMS - CYGRO-F/MINIGRO, for prediction of LMFBR fuel lifetimes
 EDDY CURRENT TESTING - method for measuring voids in WSA-5 fuel elements
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 FAST FLUX TEST FACILITY - fuel pins for, radioinduced creep and swelling mechanisms of
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 REACTOR FUEL ELEMENTS - fabrication of encapsulated WSA-5 pin-type, development of methods for
 REACTOR FUEL ELEMENTS - development and testing of grid-type, for LMFBR programs
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of fuel pellets of, for WSA-4 and WSA-5 irradiation experiments
 URANIUM OXIDES UO_2 - properties of fuel pellets and powders of, chemical, metallographic, and physical
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , properties of fuel pellets and powders of, chemical, metallographic, and physical

- 397 26:28609 (ANL--7775, pp 37-63) SODIUM TECHNOLOGY. Burris, L.; Draley, J. E.; Cafasso, F. A.; Nelson, P. A. (Argonne National Lab., Ill.). Apr 1971. In Chemical Engineering Division annual report, 1970.

ANILINE, N,N-DIETHYL- - solvent properties for radioactive impurities in sodium, p. 42-43
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- 398 26:28612 (HEDL-TME--71-133) TENSILE PROPERTIES OF PROTOTYPIC FTR VESSEL WELDMENT MATERIALS (RM-15). Ward, A. L. (Hanford Engineering Development Lab., Richland, Wash.). Sep 1971. Contract AT(45-1)-2170. 12p. Dep. NTIS.

FAST TEST REACTOR - pressure vessel for, tensile properties of Type 304 stainless steel weldment materials for
 STAINLESS STEEL - tensile properties of FTR vessel materials of Type 304

- 399 26:30173 ENGINEERING OF FAST REACTORS. Wolff, P. H. W. (British Nuclear Design and Construction Ltd., Whetstone, Eng.). pp 4.1-34 of Engineering for Nuclear Power. /Stewart, J. C. C. Nottingham, Eng.; Univ. of Nottingham (1971).

REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, engineering programs for

- 400 26:30181 WEAR AND FRICTION CHARACTERISTICS OF STRUCTURAL MATERIALS IN LIQUID SODIUM. Glaeser, W. A. (Batelle Memorial Inst., Columbus, Ohio). Reactor Technol.; 15: No. 1, 1-10(Spring 1972).

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - core materials for, effects of liquid sodium on friction and wear of
 SODIUM - effects of liquid, on friction and wear characteristics of reactor core materials

- 401 26:30184 INCENTIVES FOR THE DEVELOPMENT OF THE FAST BREEDER REACTOR. Murphy, P. M.; Palmer, R. S.; Sherer, D. B. Pub. Util. Fortn.; 89: No. 7, 25-30(30 Mar 1972).

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, incentives for

- 402 26:30188 ENDF/B-2: IS IT ADEQUATE FOR THE DESIGN AND EVALUATION NEEDS OF THE LMFBR PROGRAM. Alter, Harry (Atomics International, Canoga Park, Calif.). Reactor Technol.; 15: No. 1, 59-75(Spring 1972).

LIQUID METAL FAST BREEDER REACTOR - design calculations for, accuracy of ENDF/B-2 data for
 NEUTRON CROSS SECTIONS - evaluation off ENDF/B-2, for fast reactor design calculations

- 403 26:30193 (ANL--7911) COMPARISON OF A TWO-DIMENSIONAL HYDRODYNAMICS CODE (REXCO) TO EXCURSION EXPERIMENTS FOR FAST REACTOR CONTAINMENT. Ash, J. E.; Julke, R. T. (Argonne National Lab., Ill.). Jan 1972. Contract W-31-109-eng-38. 80p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - containment structures and systems for, comparison of calculated and experimental effects of excursions on, (E/T)
 REACTOR CONTAINMENT STRUCTURES; REACTOR CONTAINMENT SYSTEMS - performance of liquid metal fast breeder reactor, comparison of calculated and experimental effects of excursions on
- 404 26:30195 (ORNL-TM--3695) FAST REACTOR SHIELDING MONTHLY PROGRESS REPORT FOR DECEMBER 1971. 189A NO. 10028, ACTIVITY NO. 40 01 61. Mynatt, F. R.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). 31 Jan 1972. Contract W-7405-eng-26. 50p. Dep. NTIS.
- FAST TEST REACTOR - shielding of, neutron flux distribution in, (E)
 LIQUID METAL FAST BREEDER REACTOR - coolants for, neutron transport through liquid sodium, (E)
 NEUTRONS - flux distribution in liquid metal cooled fast reactor shielding, (E)
 NEUTRONS - transport through liquid sodium, (E)
 SHIELDING - neutron flux distribution in liquid metal cooled fast reactor, (E)
 SODIUM - neutron transport through liquid, (E)
- 405 26:30201 (ANL--7846) SODIUM TECHNOLOGY QUARTERLY REPORT, APRIL--JUNE 1971. Kesser, G. M. (comp. and ed.) (Argonne National Lab., Ill.). Oct 1971. Contract W-31-109-eng-38. 59p. Dep. NTIS.
- CARBON - transport in steel, effects of liquid sodium on
 FAST TEST REACTOR - coolant for, development of on-line impurity monitoring meters for liquid sodium
 GAGES AND METERS - development of reactor on-line, for monitoring impurities in liquid sodium
 IODINE ISOTOPES I-135 - monitoring in liquid sodium, method for
 KRYPTON - solubility in liquid sodium for 400 to 550°C
 LIQUID METAL FAST BREEDER REACTOR - coolant for, development of on-line impurity monitoring meters for liquid sodium
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, development of instrumentation for detection of failures for
 REACTOR FUEL ELEMENTS - failure of liquid sodium cooled, development of instrumentation for detection of
 SODIUM - monitoring impurities in liquid, development of reactor on-line meters for
 SODIUM - purity standards for liquid metal cooled reactor coolant, development of
 SODIUM - solvent properties of liquid, for krypton for 400 to 550°C
 SODIUM - effects on carbon transport for steel of liquid
 STEEL - carbon transport for, effects of liquid sodium on
- 406 26:30206 SOME PROBLEMS OF HYDRO- AND AERO-ELASTICITY. Conference Held at Paris, France, March 18, 1971. Houille Blanche; 26: No. 6, 491-571(1971). (In French). (CONF-710347).
- PHENIX FAST REACTOR - components for, effects of flow hydraulics of liquid sodium on vibrations in
 PHENIX FAST REACTOR - coolant for, analysis of flow hydraulics for liquid sodium
- 407 26:30207 VIBRATORY BEHAVIOR OF THE INTERMEDIATE EXCHANGERS OF THE PHENIX REACTOR. Andro, J. (Societe Stein Industrie, Paris); Boulot, F.; Kayser, G. Houille Blanche; 26: No. 6, 491-8(1971). (In French). From Meeting on some problems of hydro- and aero-elasticity; Paris, France (18 Mar 1971).
- HEAT EXCHANGERS - tube vibrations in liquid sodium cooled
 PHENIX FAST REACTOR - heat exchangers for, vibration characteristics of tubes in intermediate
 TUBES - vibration characteristics in liquid sodium cooled heat exchangers
- 408 26:30208 EXPERIMENTAL STUDY OF THE FLUCTUATING HYDRODYNAMIC FORCES IN THE PHENIX REACTOR. Lambert, P.; Leon, P. (Societe Grenobloise d'Etudes et d'Applications Hydrauliques, Grenoble, France). Houille Blanche; 26: No. 6, 499-503(1971). (In French). From Meeting on some problems of hydro- and aero-elasticity; Paris, France (18 Mar 1971).

PHENIX FAST REACTOR - cooling system of, effects of coolant flow hydraulics on vibrations in
 PHENIX FAST REACTOR - components of, effects of coolant flow hydraulics on vibrations in

- 409 26:30209 RESPONSE OF CYLINDRICAL SHELLS TO HYDRODYNAMIC EXCITATION. Levin, L. (Societe BVS, Grenoble, France); Milan, D.; Payan, G. Houille Blanche; 26: No. 6, 505-12(1971). (In French). From Meeting on some problems of hydro- and aero-elasticity; Paris, France (18 Mar 1971).
- PHENIX FAST REACTOR - pressure vessel for, effects of coolant flow hydraulics on vibrations in
 PHENIX FAST REACTOR - cooling system of, effects of coolant flow hydraulics on vibrations in
 PRESSURE VESSELS - vibrations in cylinder shaped, effects of liquid sodium flow hydraulics on
- 410 26:30212 (ANL--7775, pp 87-102) REACTOR AND ANALYTICAL CHEMISTRY. Crouthamel, C. E. (Argonne National Lab., Ill.). Apr 1971. In Chemical Engineering Division annual report, 1970.
- CESIUM - distribution in oxide matrix of irradiated plutonium dioxide--uranium dioxide fuels, p. 92-95
 EXPERIMENTAL BREEDER REACTOR-II - breeding potential of fuel samples in, effects of core position on, (E), p. 96-98
 EXPERIMENTAL BREEDER REACTOR-II - fuels for, effects of neutron energy on fission yields from, (E), p. 100-102
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 PLUTONIUM ISOTOPES Pu-240 - breeding potential in reactor fuels, effects of core position on, (E), p. 96-98
 PLUTONIUM ISOTOPES Pu-242 - neutron capture to fission ratio in, effects of reactor core position on, (E), p. 96-98
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, metal inclusions in irradiated, p. 91
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 REACTOR FUELS - analysis of irradiated mixed oxide, application of energy-dispersion devices to electron microprobe, p. 89
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 URANIUM ISOTOPES U-233 - neutron capture to fission ratio in, effects of reactor core position on, (E), p. 96-98
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 URANIUM ISOTOPES U-235 - breeding potential in reactor fuels, effects of core position on, (E), p. 96-98

URANIUM ISOTOPES U-235 - neutron fission of, effects of neutron energy on fission yields from, (E), p. 100-102
 URANIUM ISOTOPES U-238 - neutron capture to fission ratio in, effects of reactor core position on, (E), p. 96-98
 URANIUM ISOTOPES U-238 - neutron fission of, effects of neutron energy on fission yields from, (E), p. 100-102
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 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , molybdenum distribution in oxide matrix of irradiated, radial, p. 92-95
 ZIRCONIUM ISOTOPES Zr-95 - yields from fission of fast reactor fuels, effects of neutron energy on, (E), p. 100-102

- 411 26:30217 (ORNL-TM--3726) BUNDLE ENTRANCE COOLANT VELOCITY PROFILES FOR THE FFM AND THE FFM WATER MOCKUP. Gambill, W. R. (Oak Ridge National Lab., Tenn.). Apr 1972. Contract W-7405-eng-26. 24p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, Fuel Failure Mockup coolant entrance velocity profiles for bundles of rod, (E)
 REACTOR FUEL ELEMENTS - coolant entrance velocity profiles for Fuel Failure Mockup bundles, (E)

- 412 26:30218 TEMPERATURE-ACTIVATED REACTOR CORE CLAMP. Stankiewicz, Raymond S. (to United States Atomic Energy Commission). U. S. Patent 3,629,070. 21 Dec 1971. Filed 9 Jun 1969.

REACTOR FUEL ELEMENTS - clamps for, design of temperature-activated
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel assemblies for, temperature-activated clamp for

- 413 26:30222 VIBRATIONS OF THE FUEL PINS AND ASSEMBLIES OF THE PHENIX REACTOR. Ginier, R.; Pontier, M. (CEN de Cadarache, Saint-Paul-les-Durance, France). Houille Blanche; 26: No. 6, 513-17(1971). (In French). From Meeting on some problems of hydro- and aero-elasticity; Paris, France (18 Mar 1971).

PHENIX FAST REACTOR - fuel elements in, effects of coolant flow hydraulics on vibrations in bundles of pin
 REACTOR FUEL ELEMENTS - vibrations in bundles of pin, effects of liquid sodium flow hydraulics on

- 414 26:30224 FAST BREEDER FUEL. Murray, P. (Westinghouse Electric Corp., Madison, Pa.). Reactor Technol.; 15: No. 1, 16-58(Spring 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, review of irradiation performance of stainless steel clad mixed oxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , performance of stainless steel clad fuel elements of, in sodium cooled fast reactors
 REACTOR FUEL ELEMENTS - performance of stainless steel clad mixed oxide fast, review of irradiation
 STAINLESS STEEL - performance of fuel element cladding of, in liquid sodium--fast neutron environment
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , performance of stainless steel clad fuel elements of, in sodium cooled fast reactors

- 415 26:30226 TRANSFER MACHINE FOR NUCLEAR REACTOR. Muenchow, Herbert O. (to United States Atomic Energy Commission). U. S. Patent 3,629,062. 21 Dec 1971. Filed 12 May 1969.

REACTOR LOADING MACHINES - design of liquid metal cooled, with means for cooling and shielding spent fuel
 REACTORS, LIQUID METAL-COOLED - loading machines for, with means for cooling and shielding spent fuel

- 416 26:30236 (FRNC-TH--104) AEROSOL STUDY USING ELECTRON DIFFRACTION. Ponchin, Georges-C. (Aix-Marseilles Univ. (France)). 1971. 71p. (In French). Dep. NTIS (U. S. Sales Only). Thesis.

AEROSOLS - production in reactor accidents, electron diffraction analysis of
 REACTORS - accidents in, electron diffraction analysis of aerosols produced in
 REACTORS, LIQUID METAL-COOLED - aerosol production following coolant loss accidents and
 sodium fires, electron diffraction study of behavior and effects of

- 417 26:30246 THEORETICAL STUDY OF TRANSIENT SODIUM BOILING IN REACTOR COOLANT CHANNELS
 UTILIZING A COMPRESSIBLE FLOW MODEL. Siegmann, Eric Raymond. Evanston, Ill.; Northwestern
 Univ. (1971). 178p. University Microfilms Order No. 72-7840. Thesis.

REACTORS, FAST - coolant boiling in sodium cooled, compressible flow model of power
 transient and loss of flow effects on, (T)
 REACTORS, LIQUID METAL-COOLED - coolant boiling in sodium cooled, compressible flow model
 of, power transient and loss of flow effects on, (T)

- 418 26:30251 FIRST LOSS OF FLOW EXPERIMENT WITH AN FTR-TYPE FUEL PIN IN THE MARK-II LOOP.
 Carter, J. C. (Argonne National Lab., Ill.); Purviance, R. T.; Boland, J. F.;
 Dickerman, C. E.; Hanson, J. E. Nucl. Technol.; 14: No. 2, 133-45 (May 1972).

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - fuel pins for, effects of coolant
 loss on structural integrity of, (E)
 REACTOR FUEL ELEMENTS - failure of sodium cooled fast, effects of coolant loss on, (E)

- 419 26:30257 (TID--3324) TITLE LISTING OF CIVILIAN POWER REACTOR DOCKET LITERATURE IN
 NUCLEAR SCIENCE ABSTRACTS. Volumes 21--25(1967--1971). (Technical Information Center
 (AEC), Oak Ridge, Tenn.). Mar 1972. 355p. Dep. NTIS.

AGUIRRE POWER REACTOR, UNIT 1; ARKANSAS NUCLEAR ONE POWER REACTOR; ARKANSAS NUCLEAR ONE
 POWER REACTOR, UNIT 2; ATLANTIC RICHFIELD REPROCESSING PLANT; BABCOCK AND WILCOX TEST
 REACTOR; BAILLY POWER REACTOR, UNIT 1; BARNWELL NUCLEAR FUEL PROCESSING PLANT; BEAVER
 VALLEY POWER REACTOR, UNIT 1; BELL STATION POWER REACTOR - safety analysis reports, title
 list through 1971 of
 BIBLIOGRAPHIES - on civilian power reactor docket literature, title list through 1971
 BIG ROCK POINT POWER REACTOR; BOLSA ISLAND POWER REACTOR, UNIT 1; BROWNS FERRY POWER
 REACTOR, UNIT 1; BROWNS FERRY POWER REACTOR, UNIT 2; BROWNS FERRY POWER REACTOR, UNIT 3
 BRUNSWICK POWER REACTOR, UNIT 1; BRUNSWICK POWER REACTOR, UNIT 2; CALVERT CLIFFS POWER
 REACTOR, UNIT 1; CALVERT CLIFFS POWER REACTOR, UNIT 2; CAROLINAS-VIRGINIA TUBE REACTOR
 CONNECTICUT YANKEE POWER REACTOR; COOPER POWER REACTOR; CRYSTAL RIVER POWER REACTOR, UNIT
 3; CRYSTAL RIVER POWER REACTOR, UNIT 4; DAVIS-BESSE POWER REACTOR; DIABLO CANYON POWER
 REACTOR, UNIT 1; DIABLO CANYON POWER REACTOR, UNIT 2; DONALD C. COOK POWER REACTOR, UNIT
 1; DONALD C. COOK POWER REACTOR, UNIT 2; DRESDEN POWER REACTOR, UNIT 1; DRESDEN POWER
 REACTOR, UNIT 2; DRESDEN POWER REACTOR, UNIT 3; DUANE ARNOLD POWER REACTOR; EASTON POWER
 REACTOR; EDWIN I. HATCH POWER REACTOR, UNIT 1; EDWIN I. HATCH POWER REACTOR, UNIT 2; ELK
 RIVER POWER REACTOR; FERMI FAST BREEDER REACTOR; FERMI POWER REACTOR, UNIT 2; FORKED
 RIVER POWER REACTOR, UNIT 1; FORT CALHOUN POWER REACTOR, UNIT 1; FORT ST. VRAIN POWER
 REACTOR, UNIT 1; H.B. ROBINSON POWER REACTOR, UNIT 2; HALLAM POWER REACTOR; HANFORD POWER
 REACTOR, UNIT 2; HUMBOLDT BAY POWER REACTOR; HUTCHINSON ISLAND POWER REACTORS UNITS I AND II
 INDIAN POINT POWER REACTOR, UNIT 1; INDIAN POINT POWER REACTOR, UNIT 2; INDIAN POINT
 POWER REACTOR, UNIT 3; JAMES A. FITZPATRICK POWER REACTOR; JOSEPH M. FARLEY POWER
 REACTOR, UNIT 1; JOSEPH M. FARLEY POWER REACTOR, UNIT 2; KEWAUNEE POWER REACTOR; LA
 CROSSE BOILING-WATER REACTOR; LA SALLE COUNTY POWER REACTOR, UNIT 1; LA SALLE COUNTY
 POWER REACTOR, UNIT 2; LIMERICK POWER REACTOR, UNIT 1; LIMERICK POWER REACTOR, UNIT 2; MC
 GUIRE POWER REACTOR, UNIT 1; MC GUIRE POWER REACTOR, UNIT 2; MAINE YANKEE POWER REACTOR
 MALIBU POWER REACTOR; MARITIME PRESSURIZED-WATER REACTOR; MENDOCINO POWER REACTOR, UNIT 1
 MENDOCINO POWER REACTOR, UNIT 2; MIDLAND POWER REACTOR, UNIT 1; MIDLAND POWER REACTOR,
 UNIT 2; MIDWEST FUEL RECOVERY PLANT; MILLSTONE POINT POWER REACTOR, UNIT 1; MILLSTONE
 POINT POWER REACTOR, UNIT 2; MONTICELLO POWER REACTOR, UNIT 1; NBS RESEARCH REACTOR
 NEWBOLD ISLAND POWER REACTOR, UNIT 1; NEWBOLD ISLAND POWER REACTOR, UNIT 2; NINE MILE
 POINT POWER REACTOR, UNIT 1; NORTH ANNA POWER REACTOR, UNIT 1; NORTH ANNA POWER REACTOR,
 UNIT 2; NORTH ANNA POWER REACTOR, UNIT 3; NORTH ANNA POWER REACTOR, UNIT 4; OCONEE POWER
 REACTOR, UNIT 1; OCONEE POWER REACTOR, UNIT 2; OCONEE POWER REACTOR, UNIT 3; OYSTER CREEK
 POWER REACTOR, UNIT 1; PALISADES POWER REACTOR; PEACH BOTTOM POWER REACTOR, UNIT 1; PEACH
 BOTTOM POWER REACTOR, UNIT 2; PEACH BOTTOM POWER REACTOR, UNIT 3; PILGRIM POWER REACTOR
 POINT BEACH POWER REACTOR, UNIT 1; POINT BEACH POWER REACTOR, UNIT 2; PRAIRIE ISLAND
 POWER REACTOR, UNIT 1; PRAIRIE ISLAND POWER REACTOR, UNIT 2; PROOF TEST FACILITY; PUERTO
 RICO POWER REACTOR; QUAD CITIES POWER REACTOR, UNIT 1; QUAD CITIES POWER REACTOR, UNIT 2
 RADIOCHEMICAL PROCESSING PLANTS; RANCHO SECO POWER REACTOR; REACTORS, POWER; REACTORS,
 RESEARCH; ROBERT E. GINNA POWER REACTOR, UNIT 1; SALEM POWER REACTOR, UNIT 1; SALEM POWER
 REACTOR, UNIT 2; SAN ONOFRE POWER REACTOR, UNIT 1; SAN ONOFRE POWER REACTOR, UNIT 2; SAN
 ONOFRE POWER REACTOR, UNIT 3; SAXTON POWER REACTOR; SEABROOK POWER REACTOR, UNIT 1
 SEQUOYAH POWER REACTOR, UNIT 1; SEQUOYAH POWER REACTOR, UNIT 2; SHEARON HARRIS POWER
 REACTOR, UNIT 1; SHEARON HARRIS POWER REACTOR, UNIT 2; SHEARON HARRIS POWER REACTOR, UNIT
 3; SHEARON HARRIS POWER REACTOR, UNIT 4; SHOREHAM POWER REACTOR, UNIT 1; SIOUX FALLS

POWER REACTOR; SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR; SURRY POWER REACTOR, UNIT 1
 SURRY POWER REACTOR, UNIT 2; SUSQUEHANNA POWER REACTOR, UNIT 1; SUSQUEHANNA POWER
 REACTOR, UNIT 2; THREE MILE ISLAND POWER REACTOR, UNIT 1; THREE MILE ISLAND POWER
 REACTOR, UNIT 2; TROJAN POWER REACTOR, UNIT 1; TURKEY POINT POWER REACTOR, UNIT 3; TURKEY
 POINT POWER REACTOR, UNIT 4; VALLECITOS BOILING-WATER REACTOR; VALLECITOS SUPERHEAT
 REACTOR; VERMONT YANKEE POWER REACTOR; VERPLANCK POWER REACTOR, UNIT 1; VERPLANCK POWER
 REACTOR, UNIT 2; VIRGIL C. SUMMER POWER REACTOR, UNIT 1; WATERFORD POWER REACTOR, UNIT 3
 WATERFORD POWER REACTOR, UNIT 4; WATTS BAR POWER REACTOR, UNIT 1; WATTS BAR POWER
 REACTOR, UNIT 2; WEST VALLEY PROCESSING PLANT; WILLIAM H. ZIMMER POWER REACTOR, UNIT 1
 WILLIAM H. ZIMMER POWER REACTOR, UNIT 2; YANKEE POWER REACTOR; ZION POWER REACTOR, UNIT 1
 ZION POWER REACTOR, UNIT 2 - safety analysis reports, title list through 1971 of

- 420 26:30269 (DOCKET-50016--155) ENRICO FERMI ATOMIC POWER PLANT. Report for December
 1971. (Power Reactor Development Co., Detroit, Mich.). 13 Apr 1972. 12p. (PRDC-EF--100).
 Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during December 1971

- 421 26:30288 200 MWt OPERATING EXPERIENCE OF ENRICO FERMI FAST BREEDER REACTOR. Ikemoto,
 Ichiro; Yoshiki, Nobuya; Takeshita, Toshihide Nippon Genshiryoku Gakkaishi; 14: No. 3,
 113-23(Mar 1972). (In Japanese).

FERMI FAST BREEDER REACTOR - operation following fuel meltdown in, summary of post-repair

- 422 26:30393 (JAPFNR--15) FAST BREEDER REACTOR DEVELOPMENT IN JAPAN. Quarterly Progress
 Report, September-November 1971. (Power Reactor and Nuclear Fuel Development Corp., Tokai
 (Japan)). Translation of a Japanese report. 8p. Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - construction of
 JAPANESE EXPERIMENTAL FAST REACTOR - components for, testing programs for
 JAPANESE PROTOTYPE FAST BREEDER REACTOR - design characteristics of
 REACTORS, BREEDER - development in Japan of fast
 REACTORS, FAST - development in Japan of breeder

- 423 26:30404 (ORNL-TM--3705) FFTF RELATED STUDIES IN THE ORNL--LMFBR SHIELDING PROGRAM.
 Mynatt, F. R.; Clifford, C. E.; Muckenthaler, F. J.; Maerker, R. E.; Gritzner, M. L.;
 Williams, L. R.; Rathbun, J. L. (Oak Ridge National Lab., Tenn.). 27 Mar 1972. 53p. Dep.
 NTIS.

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - shielding of, neutron flux
 distribution in, (E/T)
 NEUTRONS - flux distribution in liquid metal cooled fast reactor shielding, (E/T)
 SHIELDING - neutron flux distribution in liquid metal cooled fast reactor, (E/T)

- 424 26:30411 (GEAP--10010-30) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR DEVELOPMENT PROGRAM.
 Quarterly Report No. 30, August--October 1971. Pflasterer, G. R.; Becker, R. A. (comps.)
 (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Nov 1971. Contract
 AT(04-3)-540. 100p. Dep. NTIS.

PRESSURE VESSELS - stress analysis for fast reactor, method for
 REACTOR FUEL ELEMENTS - fabrication of instrumental plutonium oxide (PuO_2)--uranium oxide
 (UO_2) rods
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - control elements for, fabrication of Core 2
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 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements for, fabrication of Core 2
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 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - critical transients for Core 1, analysis of
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 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - reactivity worth of Core 2
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operation of, revised technical specifications
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 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - pressure vessel for, stress analysis for
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - maintenance during August to October 1971
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operations during August to October 1971

- 425 26:30424 OPERATIONAL CHARACTERISTICS OF IONIZATION FISSION CHAMBERS FOR REACTOR CONTROL

SYSTEMS. Dmitriev, A. B.; Malyshev, E. K.; Belozerov, V. G.; Shchetinin, O. I. At. Energ. (USSR); 32: No. 3, 230-1 (Mar 1972). (In Russian).

FILTERS - design of reactor coolant channel, for end connectors of liquid metal cooled fuel elements

RADIATION DETECTORS, FISSION CHAMBER - performance of ionization, in reactor control systems, (E)

REACTOR CONTROL SYSTEMS - fission chambers for, operational characteristics of, (E)

REACTOR FUEL ELEMENTS - end connector for liquid metal cooled, filter assembly for

REACTORS, LIQUID METAL-COOLED - fuel elements for, filter assembly for end connector of

- 426 26:30427 FUEL ASSEMBLY FOR NUCLEAR REACTOR. Arlaud, Jean Claude (to Commissariat a l'Energie Atomique). British Patent 1,262,839. 9 Feb 1972. Priority date 27 Jan 1970, France.

FILTERS - design of reactor coolant channel, for end connectors of liquid metal cooled fuel elements

REACTOR FUEL ELEMENTS - end connector for liquid metal cooled, filter assembly for

REACTORS, LIQUID METAL-COOLED - fuel elements for, filter assembly for end connector of

- 427 26:30429 FUEL ASSEMBLIES FOR NUCLEAR REACTORS. Cayol, Andre; Chalony, Andre; Clottes, Georges; (and others) (to Commissariat a l'Energie Atomique). British Patent 1,264,090. 16 Feb 1972. Priority date 12 Dec 1969; 20 Nov 1970, France.

REACTOR FUEL ELEMENTS - design of liquid metal cooled, with spacer means for equilization of coolant temperature at sub-channel outlets

REACTORS, LIQUID METAL-COOLED - fuel elements for, equilization of coolant temperature at sub-channel outlets of

- 428 26:30430 REFUELLING MEANS FOR NUCLEAR REACTORS. Barker, Allan (to United Kingdom Atomic Energy Authority). U. S. Patent 3,635,792. 18 Jan 1972. Priority date 16 Aug 1967, Great Britain.

REACTORS, FAST - fuel storage system for liquid metal cooled, design of in-vessel

REACTORS, LIQUID METAL-COOLED - fuel storage system for fast, design of in-vessel

- 429 26:30442 (JAERI-M--4559) EXPERIMENTAL STUDIES ON THE CHARACTERISTIC VALUES OF A REACTOR COMPOSITION IN FAST SYSTEMS. Nakano, Masafum (Japan Atomic Energy Research Inst., Tokyo). Aug 1971. 53p. (In Japanese). NTIS (U. S. Sales Only).

CRITICAL ASSEMBLIES - multiplication factors for FCA, measurement of infinite

REACTORS, FAST - multiplication factors for, method for measurement of infinite

- 430 26:30453 SMALL-SAMPLE DOPPLER EFFECT MEASUREMENTS AND THEIR INTERPRETATION IN FAST REACTOR SPECTRA. Barleon, L.; Fischer, E. A. (Kernforschungszentrum, Karlsruhe, Ger.). Nucl. Sci. Eng.; 47: No. 3, 247-61 (Mar 1972).

CRITICAL ASSEMBLIES - Doppler effect measurements on fuel samples in SNEAK, (E/T)

PLUTONIUM OXIDES PuO_2 - neutron Doppler effect in steam cooled fast reactors, pile

oscillator measurements of, (E/T)

REACTORS, FAST; REACTORS, SUPERHEATING - Doppler effect of fuel samples in steam cooled,

pile oscillator measurements of, (E/T)

URANIUM OXIDES UO_2 - neutron Doppler effect in steam cooled fast reactors, pile oscillator measurements of, (E/T)

- 431 26:30462 PARAMETER IDENTIFICATION IN NUCLEAR REACTOR SYSTEMS. Roman, William Stanley. Charlottesville, Va.; Univ. of Virginia (1971). 233p. University Microfilms Order No. 72-7145. Thesis.

LIQUID METAL FAST BREEDER REACTOR; REACTORS - physics parameters of, techniques for identification of lumped and distributive system, (T)

- 432 26:30475 (FRNC-CONF--22) NUMERICAL CALCULATIONS ON THE TRANSFER OF HEAT BY NATURAL CONVECTION IN A CAVITY. APPLICATION TO LIQUID METALS. Daubert, A.; Graffe, O.; Burg, M.

C. (Electricite de France, Clamart). Mar 1971. 7p. (In French). (CONF-710939--3). Dep. NTIS (U. S. Sales Only). From Conference on natural and mixed convection and its industrial application; Ermenonville, France (13 Sep 1971).

METALS - heat transfer by liquid, calculation in rectangular cavities of natural convection, (T)
 REACTORS, LIQUID METAL-COOLED - coolants for, calculations of natural convection heat transfer by, (T)

- 433 26:30666 (ANL--7868) SODIUM TECHNOLOGY QUARTERLY REPORT, JULY--SEPTEMBER 1971. Kesser, G. M. (comp. and ed.) (Argonne National Lab., Ill.). Mar 1972. Contract W-31-109-eng-38. 68p. Dep. NTIS.

BOILERS - leaks in, development of detectors for
 CARBON - monitoring in liquid sodium, on-line meters for
 CARBON - distribution between liquid sodium and iron alloys
 FAST FLUX TEST FACILITY - cooling system on-line impurity monitors for
 FAST FLUX TEST FACILITY - fuel element failures in, sparge gas analyzer for detection of
 HYDROGEN - monitoring in liquid sodium, on-line meters for
 IODINE ISOTOPES I-135 - monitoring in liquid sodium, sparging method for
 IRON ALLOYS AND SYSTEMS - carbon distribution between liquid sodium and
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 NEON - separation from other rare gas fission products by gas chromatography
 NEUTRONS, FAST - effects on mechanical properties of stainless steels in presence of liquid sodium
 OXYGEN - monitoring in liquid sodium, on-line meters for
 OXYGEN - determination in liquid sodium, uranium getter for
 RARE GASES - separation of neon from fission product, by gas chromatography
 SODIUM - monitoring of liquid, for impurities, on-line meters for
 SODIUM - analysis and sampling of liquid, standards for
 SODIUM - analysis of liquid, for oxygen, uranium getter for
 SODIUM - monitoring of liquid, for iodine-135, sparging method for
 SODIUM - chemistry of liquid
 SODIUM - carbon distribution between iron alloys and liquid
 STAINLESS STEEL - radiation effects on mechanical properties of, in presence of liquid sodium, fast neutron

- 434 26:30921 (ORNL--4746) CALCULATION OF THE TRANSIENT BEHAVIOR OF A DILUTE-PUREX SOLVENT EXTRACTION PROCESS HAVING APPLICATION TO THE REPROCESSING OF LMFBR FUELS. Groenier, W. S. (Oak Ridge National Lab., Tenn.). Apr 1972. Contract W-7405-eng-26. 60p. Dep. NTIS.

COMPUTER PROGRAMS - SEPHIS, for prediction of stage and product stream concentrations in Purex Process
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, calculation of transient behavior in dilute Purex Process for
 NUCLEAR MATERIALS MANAGEMENT - computer program for use in, in Purex Process
 PUREX PROCESS - transient behavior in, computer program for calculation of
 REACTOR FUELS - reprocessing of potential LMFBR, calculation of transient behavior in dilute Purex Process for

- 435 26:31036 (BNWL-B--1) FFTF SITE METEOROLOGY. Progress Report No. 1. Daubek, H. G.; Wolf, M. A. (Battelle-Northwest, Richland, Wash. Pacific Northwest Lab.). Sep 1970. Contract AT(45-1)-1830. 171p. Dep. NTIS.

ATMOSPHERE - temperature at Fast Flux Test Facility site during Dec. 1969 to July 1970, measurements of
 FAST FLUX TEST FACILITY - site of, measurements of meteorological conditions during Dec. 1969 to July 1970 at
 WIND - velocity at Fast Flux Test Facility site during Dec. 1969 to July 1970, tabulated data from measurements of

- 436 26:31450 (LMEC--72-1) LIQUID METAL ENGINEERING CENTER (LMEC). Annual Technical Progress Report, January-December 1971. (Atomics International, Canoga Park, Calif. Liquid Metal Engineering Center). 24 Mar 1972. Contract AT(04-3)-700. 282p. Dep. NTIS.

ALUMINUM OXIDES - Al_2O_3 --Cr--W, friction and wear of sliding surfaces on composite couples of, in high-temperature sodium, p.1-81
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- CHROMIUM CARBIDES - Cr_3C_2 --Ni, friction and wear of sliding surfaces on couples of, in high-temperature sodium, p.1-81
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- HEAT - storage in liquid sodium systems during transients, design of thermal capacitors for, p.2-3
- HEAT EXCHANGERS - design of concentric-pipe, for liquid sodium systems, p.2-33
- INCONEL 718 - friction and wear of sliding surfaces on couples of, in high-temperature sodium, p.1-81
- LEVEL INDICATORS - development and testing of transducerized, for liquid sodium, p.1-145
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- NICHROME - Cr_3C_2 --Nichrome, friction and wear of sliding surfaces on couples of, in high-temperature sodium, p.1-81
- NICKEL ALLOYS AND SYSTEMS - Cr_3C_2 --Ni, friction and wear of sliding surfaces on couples of, in high-temperature sodium, p.1-81
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- THERMAL SHOCK - suppression in liquid sodium systems using thermal capacitors, p.2-3
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- TUNGSTEN CARBIDES - Co--WC, friction and wear of sliding surfaces on couples of, in high-temperature sodium, p.1-81
- VALVES - testing of freeze-stem gate-type liquid metal, p.1-19
- 437 26:31548 FERRITIC Cr--Mo--STEEL WITH NIOBIUM ADDITION USABLE FOR THE CONSTRUCTION OF SODIUM-COOLED NUCLEAR REACTORS. Lorenz, K.; Kranz, E.; Fabritius, H. A. Mannesmann Forschungsber.; 78: No. 10, 3-7(1970). (In German).
- CHROMIUM ALLOYS AND SYSTEMS; MOLYBDENUM ALLOYS AND SYSTEMS - Cr--Mo--steel, properties of niobium-stabilized, for fabrication of sodium cooling systems for reactors
- REACTORS, LIQUID METAL-COOLED - cooling system for, performance of niobium-stabilized chromium--molybdenum--steel in
- STEEL - Cr--Mo--steel, properties of niobium-stabilized, for fabrication of sodium cooling systems for reactors
- 438 26:31558 (HEDL-TME--71-161) IRRADIATION EFFECTS ON REACTOR STRUCTURAL MATERIALS. Quarterly Progress Report, August--October 1971. (Hanford Engineering Development Lab., Richland, Wash.). 1971. Contract AT(45-1)-2170. 290p. Dep. NTIS.
- COPPER - radioinduced swelling of high-purity, in-pile, p. PNL-1
- EXPERIMENTAL BREEDER REACTOR - core neutron flux and spectra in, measurement of, p. HEDL-83
- FAST TEST REACTOR - materials for, development and radiation testing of
- HASTELLOY X; INCOLOY 800; INCONEL 625 - radiation effects on mechanical properties and swelling of, relations of composition with in-pile, p. GE-5, GE-11
- LIQUID METAL FAST BREEDER REACTOR - materials for, development and radiation testing of
- NEUTRONS, FAST - effects on microstructure and properties of Types 304 and 316 stainless steel, p. ANC-1, NRL-1, ORNL-1
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- NICKEL 200 - tensile properties of, effects of strain rate on, p. HEDL-16

NICKEL IONS - effects on swelling of Type 304 stainless steel at 4 MeV, p. ANL-2
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 STAINLESS STEEL - radiation effects on creep and tensile properties of Types 304 and 316, in-pile, p. HEDL-47, HEDL-51, HEDL-66
 STAINLESS STEEL - mechanical properties of Types 304 and 316, at 430 to 816°C, relations with microstructure, p. UC-1
 STEEL - radiation effects on fracture and tensile properties of heavy-section Type A533, p. HEDL-72

- 439 26:32754 (TID--3333(Pt.1)) LIQUID METAL FAST BREEDER REACTORS, 1948--1961. (Technical Information Center (AEC), Oak Ridge, Tenn.). 121p. Dep. NTIS.

BIBLIOGRAPHIES - on development of liquid metal cooled fast breeder reactors during 1948 to 1961
 CRITICAL ASSEMBLIES - development during 1948 to 1961 of fast, bibliography of NSA abstracts on
 LIQUID METAL FAST BREEDER REACTOR - development during 1948 to 1961, bibliography of NSA abstracts on
 REACTORS, BREEDER - development during 1948 to 1961 of liquid metal cooled fast, bibliography of NSA abstracts on
 REACTORS, FAST - development during 1948 to 1961 of liquid metal cooled breeder, bibliography of NSA abstracts on
 REACTORS, LIQUID METAL-COOLED - development during 1948 to 1961 of fast breeder, bibliography of NSA abstracts on
 REACTORS, RESEARCH - development during 1948 to 1961 of liquid metal cooled fast, bibliography of NSA abstracts on

- 440 26:32755 (TID--3333(Pt.2)) LIQUID METAL FAST BREEDER REACTORS, 1962--1971. (Technical Information Center (AEC), Oak Ridge, Tenn.). 712p. Dep. NTIS.

BIBLIOGRAPHIES - on development of liquid metal cooled fast breeder reactors during 1962 to 1971
 CRITICAL ASSEMBLIES - development during 1962 to 1971 of fast, bibliography of NSA abstracts on
 LIQUID METAL FAST BREEDER REACTOR - development during 1962 to 1971, bibliography of NSA abstracts on
 REACTORS, BREEDER - development during 1962 to 1971 of liquid metal cooled fast, bibliography of NSA abstracts on
 REACTORS, FAST - development during 1962 to 1971 of liquid metal cooled breeder, bibliography of NSA abstracts on
 REACTORS, LIQUID METAL-COOLED - development during 1962 to 1971 of fast breeder, bibliography of NSA abstracts on
 REACTORS, RESEARCH - development during 1962 to 1971 of liquid metal cooled fast, bibliography of NSA abstracts on

- 441 26:32756 (TRG-Report--2152) RECOMMENDED IRON ATOMIC DISPLACEMENT CROSS SECTIONS AND DISPLACEMENT RATES FOR USE IN FAST REACTORS. Nelson, R. S.; Etherington, E. W.; Smith, M. F. (United Kingdom Atomic Energy Authority, Risley (England). Reactor Group). 1972. 33p. Dep. NTIS (U. S. Sales Only). UK 1.00 pound.

DOWNREAY FAST REACTOR - iron displacement rates in materials in, Half Nelson model for estimation of absolute
 IRON - radiation effects on, Half-Nelson model for atomic displacement production in fast reactor
 NEUTRONS, FAST - effects on iron displacement in stainless steels, Half Nelson model for estimation of absolute
 PROTOTYPE FAST REACTOR - iron displacement rates in materials in, Half Nelson model for estimation of absolute

REACTORS, FAST - materials for, Half-Nelson model of radiation induced voiding of stainless steel
 STAINLESS STEEL - radiation effects in fast reactors on, Half Nelson model for atomic displacement rates from

- 442 26:32758 (COO--3060-1) NEUTRONICS OF AN LMFBR BLANKET MOCK-UP. Leung, T. C.; Driscoll, M. J.; Kaplan, I.; Lanning, D. D. (Massachusetts Inst. of Tech., Cambridge. Dept. of Nuclear Engineering). Jan 1972. Contract AT(11-1)-3060. 186p. (MITNE--127). Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - blankets for, use of foil activation techniques for neutronics analysis of, (E/T)

- 443 26:32759 (COO--3060-2) USE OF GAMMA SPECTROSCOPY FOR NEUTRONIC ANALYSIS OF LMFBR BLANKETS. Kang, Chang-Sun; Rasmussen, Norman C.; Driscoll, Michael J. (Massachusetts Inst. of Tech., Cambridge. Dept. of Nuclear Engineering). Nov 1971. Contract AT(11-1)-3060. 315p. (MITNE--130). Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - blankets for, use of γ spectroscopy for neutronic analysis of, (E/T)

- 444 26:32760 (EURFNR--933) FAST BREEDER PROJECT. First Quarterly Report, 1971. (Kernforschungszentrum, Karlsruhe (West Germany)). Translation of report KFK--1271/1. 221p. Dep. NTIS. Work Performed under United States--Euratom Fast Reactor Exchange Program.

REACTOR FUEL ELEMENTS - development of fast breeder
 REACTORS, BREEDER - development in Federal Republic of Germany of fast, during January to March 1971
 REACTORS, BREEDER - fuel rods for fast, development of
 REACTORS, BREEDER - physics calculations for fast
 REACTORS, BREEDER - fuel cycle for fast, development of
 REACTORS, BREEDER - safety aspects of fast
 REACTORS, BREEDER - coolant for fast, corrosion tests for liquid metal
 REACTORS, BREEDER - instrumentation for fast, development of
 REACTORS, FAST - development in Federal Republic of Germany of breeder, during January to March 1971
 REACTORS, FAST - fuel rods for breeder, development of
 REACTORS, FAST - physics calculations for breeder
 REACTORS, FAST - fuel cycle for breeder, development of
 REACTORS, FAST - safety aspects of breeder
 REACTORS, FAST - coolant for breeder, corrosion tests for liquid metal
 REACTORS, FAST - instrumentation for breeder, development of

- 445 26:32763 NUCLEAR DATA AND FAST REACTORS. Crowe, D. S.; Sinclair, V. M. (United Kingdom Atomic Energy Authority, Dounreay, Scotland). pp 101-8 of Chemical Nuclear Data: Measurements and Applications. /Hurrell, M. L. (ed.). London; Institution of Civil Engineers (1971). From Conference on chemical nuclear data; Canterbury, England (20 Sep 1971).

DOUNREAY FAST REACTOR - operation of, role of basic nuclear data in, (E)
 REACTORS, FAST - design of, methods for obtaining basic nuclear data for, (E)
 REACTORS, FAST - operation of, methods for obtaining basic nuclear data for, (E)

- 446 26:32764 (ANL--7905) INSTRUMENTATION AND CONTROL ACTIVITIES AT ARGONNE. Annual Report for Period Ending June 30, 1971. Scheibelhut, C. H. (comp.) (Argonne National Lab., Ill.). Dec 1971. Contract W-31-109-eng-38. 69p. Dep. NTIS.

BOILERS - leak detection in sodium heated, development of systems for
 CRITICAL ASSEMBLIES - instrumentation for ZPR-6, ZPR-9, and ZPPR, development of
 EXPERIMENTAL BREEDER REACTOR-II - experimental facilities for testing reactor instruments
 FLOWMETERS - development for liquid sodium
 LIQUID METAL FAST BREEDER REACTOR - instrumentation for, development during July 1970 to June 1971
 LIQUID METAL FAST BREEDER REACTOR - control systems for, development during July 1970 to June 1971
 NEUTRONS - flux monitoring in sodium cooled reactors, development of instruments for
 RADIATION DETECTORS - development for use in sodium cooled reactors

REACTOR CONTROL SYSTEMS - development of sodium cooled fast, during July 1970 to June 1971
 REACTOR FUEL ELEMENTS - fission gas pressure in, null-balance transducer for measurement of
 REACTOR FUEL ELEMENTS - failure of sodium cooled fast, development of systems for detection of
 SODIUM - flowmeters for liquid, development of
 SODIUM - analysis for impurities, development of meters for
 THERMOCOUPLES - development for use in sodium cooled reactors
 TRANSDUCERS - development of null-balance, for fuel element pressure monitoring
 TRANSDUCERS - development of ultrasonic, for use in sodium cooled reactors

- 447 26:32789 STEAM GENERATOR VESSEL PRESSURES RESULTING FROM A SODIUM-WATER REACTION: A COMPUTER ANALYSIS WITH THE SWEAR CODE. Greene, David A. (General Electric Co., Sunnyvale, Calif.). Nucl. Technol.; 14: No. 3, 218-31(Jun 1972).

BOILERS - pressure transients in sodium heated steam generators, effects of sodium-water reactions on, (T)
 LIQUID METAL FAST BREEDER REACTOR - steam generators for, SWEAR code analysis of pressure transients from sodium-water reactions in, (T)

- 448 26:32791 (GEAP--10028-41) SODIUM-COOLED REACTORS FAST CERAMIC REACTOR DEVELOPMENT PROGRAM. Forty-First Quarterly Report, November 1971--January 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Feb 1972. Contract AT(04-3)-189. 155p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel irradiation testing in, status of mixed oxide
 FAST CERAMIC REACTOR - fuel elements for, development during November to January 1971
 FAST CERAMIC REACTOR - core for, design and kinetics analysis of
 FAST CERAMIC REACTOR - safety of, transient overpower and loss of flow effects on
 INCLOY 800 - radiation effects on swelling and mechanical properties of, fast neutron, (E)
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 REACTOR FUEL ELEMENTS - cladding for mixed oxide fast, development and testing of stainless steel
 REACTOR FUEL ELEMENTS - radiation effects testing of mixed oxide fast
 STAINLESS STEEL - radiation effects on swelling and mechanical properties of Type 304, Type 316, Type 321, and Type 347, fast neutron, (E)
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 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , properties of fuels of, mechanical, physical, and thermal, (E)

- 449 26:32804 (AI-AEC--13020) LMFBR SAFETY PROGRAMS. Quarterly Technical Progress Report, October--December 1971. (Atomics International, Canoga Park, Calif.). 15 Feb 1972. Contract AT(04-3)-824. 34p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - safety research on, summary of October to December 1971
 LIQUID METAL FAST BREEDER REACTOR - coolant combustion accidents in, test program for release and transport of aerosols and energy from liquid sodium
 LIQUID METAL FAST BREEDER REACTOR - coolant jet discharge in, analysis of hydrodynamics for pipe rupture actuated liquid sodium
 REACTORS, LIQUID METAL-COOLED - coolant combustion and jet discharge in sodium breeder, analysis of accidental
 SODIUM - combustion in reactor accidents, release and transport of aerosols and energy from
 SODIUM - discharge in reactor accidents, analysis of hydrodynamics for jet

- 450 26:32825 (DOCKET-50016--156) ENRICO FERMI ATOMIC POWER PLANT. Report for January 1972. (Power Reactor Development Co., Detroit, Mich.). 2 May 1972. 16p. (PRDC-EF--101). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during January 1972

- 451 26:32920 FFTF: THE BREEDER LEADER. Olds, F. C. Power Eng.; 76: No. 4, 40-3(Apr 1972).
FAST FLUX TEST FACILITY - development of, program for
- 452 26:32922 (BNWL-B--77) STUDY OF MIXING IN A SPECIAL CHANNEL. Schwendiman, L. C. (Battelle-Northwest, Richland, Wash. Pacific Northwest Lab.). 30 Mar 1971. Contract AT(45-1)-1830. 14p. Dep. NTIS.
FAST TEST REACTOR - fuel assemblies for, tracer mixing in coolant channel of mockup, (E)
- 453 26:32924 COMPLETION OF THE PEC FUEL ELEMENT PROTOTYPE AT CASACCIA. Ing. Nucl.; 12: No. 1, 12-13(1971). (In Italian).
PEC FAST TEST REACTOR - fuel elements for, fabrication of prototype
- 454 26:32925 (DOCKET-50231--117) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Certification That All Fuel Rods Have Been Removed From Reactor Vessel. (Division of Reactor Licensing (AEC), Washington, D. C.). 9 May 1972. 1p. Dep. NTIS.
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel rods for, verification of unloaded
- 455 26:32936 IMPROVEMENTS IN OR RELATING TO NUCLEAR REACTOR FUEL ELEMENTS. Linning, Davis Lees (to United Kingdom Atomic Energy Authority). British Patent 1,268,186. 22 Mar 1972. Filed 26 Apr 1968.
REACTOR FUEL ELEMENTS - design of sodium cooled fast, with voids for elimination of swelling
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, with voids for elimination of swelling
- 456 26:32945 (ORNL--4679) CIVIL DEFENSE RESEARCH PROJECT. Annual Progress Report, March 1970--March 1971. (Oak Ridge National Lab., Tenn.). Mar 1972. Contract W-7405-eng-26. 173p. Dep. NTIS.
CIVILIAN DEFENSE - research on rural, urban, and foreign
ELECTRIC POWER - vulnerability to nuclear electromagnetic pulses
ELECTROMAGNETIC FIELDS - effects from nuclear detonations on electric power systems
LIQUID METAL FAST BREEDER REACTOR - core explosion in, from nuclear attack, theoretical
NUCLEAR EXPLOSIONS - hazards from, research on civilian defense
- 457 26:33060 (ANL--7893) INVESTIGATION OF POSSIBLE LINE-LENGTH EFFECTS IN THE MEASUREMENT OF OXYGEN AND HYDROGEN IMPURITIES IN SODIUM. Ruther, W. E.; Skladzien, S. B. (Argonne National Lab., Ill.). Mar 1972. Contract W-31-109-eng-38. 20p. Dep. NTIS.
HYDROGEN - monitoring in liquid sodium, development of on-line meters for
LIQUID METAL FAST BREEDER REACTOR - cooling system of, hydrogen and oxygen on-line monitoring in
OXYGEN - monitoring in liquid sodium, development of on-line meters for
SODIUM - monitoring of liquid, for hydrogen and oxygen, development of on-line meters for
- 458 26:33235 (ANL--7902) CHEMICAL ENGINEERING DIVISION, FUEL CYCLE TECHNOLOGY QUARTERLY REPORT, OCTOBER--DECEMBER 1971. Webster, D. S.; Jonke, A. A.; Bernstein, G. J.; Levitz, N. M.; Miller, W. E.; Steindler, M. J.; Vogel, R. C. (Argonne National Lab., Ill.). Feb 1972. Contract W-31-109-eng-38. 49p. Dep. NTIS.
CENTRIFUGES - operation of contactor, in LMFBR fuel processing
LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, development of methods of
PLUTONIUM - separation from liquid metal after zinc decladding of oxide fuel
PLUTONIUM - determination in plutonium dioxide--uranium dioxide fuel, evaluation of x-ray fluorescence method for
PLUTONIUM - oxidation and reduction in Purex process
PLUTONIUM NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, conversion to oxides, fluidized-bed process for
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation from nitrate solutions, fluidized-bed process for

PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , analysis for plutonium and uranium, evaluation of x-ray fluorescence method for
 PUREX PROCESS - centrifugal contactors for
 PUREX PROCESS - plutonium reduction and reoxidation in
 REACTOR FUEL ELEMENTS - decladding of stainless steel-clad oxide, liquid zinc method for
 URANIUM - separation from liquid metal after zinc decladding of oxide fuel
 URANIUM - determination in plutonium dioxide--uranium dioxide fuel, evaluation of x-ray fluorescence method for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation from nitrate solutions, fluidized-bed process for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , analysis for plutonium and uranium, evaluation of x-ray fluorescence method for
 URANYL NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, conversion to oxides, fluidized-bed process for

- 459 26:33246 (PNC-N--831-70-2, pp 75-6) PROCESS STUDY ON AQUEOUS REPROCESSING OF JEFRE FUELS. I. PROVING TEST OF THE FIRST CYCLE FLOW SHEET FOR CODECONTAMINATION PROCESS. Hoshino, Tadayu; Yasu, Syozo; Kawashima, Nobuyoshi; Tanaka, Chuzaburo (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Dec 1970. (CONF-700345--10). From Annual meeting of the Atomic Energy Society of Japan; Hiratsuka, Japan (27 Mar 1970).

JAPANESE EXPERIMENTAL FAST REACTOR - fuel reprocessing for, flowsheet evaluation for first cycle in aqueous method for
 PLUTONIUM - separation from spent JEFRE fuel, evaluation of solvent extraction process for
 REACTOR FUELS - reprocessing of, evaluation of first cycle in solvent extraction process for
 URANIUM - separation from spent JEFRE fuel, evaluation of solvent extraction process for

- 460 26:33843 (LA--4913) QUARTERLY STATUS REPORT ON THE ADVANCED PLUTONIUM FUELS PROGRAM, OCTOBER 1--DECEMBER 31, 1971. Baker, R. D. (comp.) (Los Alamos Scientific Lab., N. Mex.). Mar 1972. Contract W-7405-eng-36. 27p. Dep. NTIS.

ALUMINUM OXIDES - enthalpy at 1298 to 1909°C, pyrometer measurements of
 BORON CARBIDES - analysis of reactor control materials of, development of chemical methods for
 HOT CELLS - development for examination of LMFBR fuel elements
 LIQUID METAL FAST BREEDER REACTOR - fuels for, development of equipment for characterization of
 METALLURGICAL EQUIPMENT - development for examination of LMFBR fuel elements
 PLUTONIUM CARBIDES - preparation of fuel pins of, development of equipment for
 PLUTONIUM CARBIDES - PuC -- UC , radiation effects on encapsulated fuels of, in-pile
 PLUTONIUM NITRIDES - properties of fuel pellets of, method for evaluation of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on properties of fuels of, differential thermal measurements of in-pile
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , analysis of fuels of, for elemental components, development of chemical methods for
 REACTOR FUEL ELEMENTS - analysis of irradiated, for elemental components, development of methods for
 REMOTE-HANDLING EQUIPMENT - development for examination of LMFBR fuel elements
 SHIELDED CONTAINERS - development for shipping LMFBR fuels
 URANIUM CARBIDES - PuC -- UC , radiation effects on encapsulated fuels of, in-pile
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on properties of fuels of, differential thermal measurements of in-pile
 URANIUM OXIDES UO_2 - thermal capacity of, at 298 to 3107°K, development of mathematical expression for calculation of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , analysis of fuels of, for elemental components, development of chemical methods for

- 461 26:35388 NUCLEAR POWER PLANTS WITH FAST BREEDERS. Laue, H. (Internationale Atomreaktorbau GmbH, Bensberg, Ger.). Konstr. Ing. Ber.; No. 10, 32-43(1971). (In German).

SNR REACTOR - design parameters of

- 462 26:35391 STUDY OF HAZARDOUS VIBRATIONS OF HYDRODYNAMIC ORIGIN OF CERTAIN STRUCTURES IN THE PHENIX REACTOR CORE. Lesueur, C. (INSA Vibrational Lab., Villeurbanne, France); Milan, D.; Payan, G. Nucl. Eng. Des.; 18: No. 2, 279-303(1972). (In French). (CONF-710903--22). From 1. international conference on structural mechanics in reactor technology; Berlin, Germany (20 Sep 1971).

PHENIX FAST REACTOR - core structures for, coolant-flow-induced vibration of, (E/T)

- 463 26:35397 (JAPFNR--22) STUDY OF HETEROGENEITY EFFECTS ON THE SODIUM VOID COEFFICIENTS. PART II. (Mitsubishi Atomic Power Industries, Inc., Omiya (Japan)). Translation of a Japanese report. 27p. Dep. NTIS (U. S. Sales Only).
- REACTORS, FAST - sodium void coefficients for liquid metal cooled, heterogeneity effects of neutron spectra and axial leakage on, (T)
REACTORS, LIQUID METAL-COOLED - sodium void coefficients for fast, heterogeneity effects of neutron spectra and axial leakage on, (T)
- 464 26:35410 (EURFNR--904(Rev.)) INHERENT PROPERTIES OF THE VARIOUS PRIMARY CIRCUIT DESIGNS FOR SODIUM-COOLED REACTORS. Mueller, R. A. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Translation of report KFK--1379. 33p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.
- REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, design characteristics of primary
- 465 26:35411 (RDT-E--4-6-T(1-72)) INTERMEDIATE HEAT EXCHANGER FOR LIQUID METAL SYSTEMS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jan 1972. 48p. RSO.
- HEAT EXCHANGERS - standards for intermediate, for sodium cooled reactors
REACTORS, LIQUID METAL-COOLED - heat exchangers for intermediate, standards for
STANDARDS - intermediate heat exchangers for liquid metal systems
- 466 26:35413 EQUIPMENT FOR MEASURING LEVELS (PARTICULARLY THOSE OF LIQUID Na, IN A REACTOR VESSEL). Spiteri, Pierre (to Electricite de France). French Patent 2,074,798. 8 Oct 1971. Filed 29 Jan 1970. (In French).
- LEVEL INDICATORS - design characteristics of electrical, for liquid sodium
REACTORS, LIQUID METAL-COOLED - coolant level indicator for, design characteristics of electrical
- 467 26:35415 EXPERIMENTAL AND ANALYTICAL INVESTIGATIONS OF SODIUM BOILING EVENTS IN NARROW CHANNELS. Peppler, W.; Schlechtendahl, E. G. (Kernforschungszentrum, Karlsruhe, Ger.). pp 162-71 of Liquid-Metal Heat Transfer and Fluid Dynamics. /Chen, John C. (ed.). New York; American Society of Mechanical Engineers (1970). From liquid metal heat transfer and fluid dynamics meeting; New York, N. Y. (30 Nov 1970).
- REACTORS, LIQUID METAL-COOLED - cooling systems of, sodium boiling in narrow channels of, (E/T)
SODIUM - boiling in narrow channels, physical parameters of, (E/T)
- 468 26:35416 FORCED CONVECTION BOILING OF SODIUM IN A NARROW CHANNEL. Costa, J.; Charlety, P. (CEN, Grenoble, France). pp 172-8 of Liquid-Metal Heat Transfer and Fluid Dynamics. /Chen, John C. (ed.). New York; American Society of Mechanical Engineers (1970). From liquid metal heat transfer and fluid dynamics meeting; New York, N. Y. (30 Nov 1970).
- REACTORS, LIQUID METAL-COOLED - coolant boiling of sodium, measurement in narrow channels of forced convection
SODIUM - boiling in narrow channels, measurement of forced convection
- 469 26:35429 METHODS OF PURIFYING SODIUM. Coron, J.; Lecocq, P. (Electricite de France, Chatou). Energ. Nucl. (Paris); 13: No. 6, 428-35(Nov-Dec 1971). (In French).
- REACTORS, LIQUID METAL-COOLED - coolant for, methods for purification of liquid sodium
SODIUM - purification of liquid, methods for
- 470 26:35433 (ANL/EBR--49) SUBASSEMBLY TEMPERATURES DURING POSTIRRADIATION TRANSFER FROM THE EBR-II PRIMARY TANK. Sackett, J. I.; Perry, W. H.; Cook, J. H.; Cushman, R. A. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Mar 1972. Contract W-31-109-eng-38. 54p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel element transfer system for, cooling requirements of
 EXPERIMENTAL BREEDER REACTOR-II - fuel elements of, decay heat from irradiated
 REACTOR FUEL ELEMENTS - decay heat from irradiated breeder
 REMOTE-HANDLING EQUIPMENT - cooling system requirements of irradiated fuel transfer, in
 sodium cooled breeder reactors

- 471 26:35435 (EURFNR--969) FAST REACTOR PROGRAMME. First Quarter 1971 Progress Report. Hoekstra, E. K. (comp.) (Reactor Centrum Nederland, Petten). Oct 1971. 114p. (RCN--156). Dep. NTIS (U. S. Sales Only). Work Performed under United States--Euratom Fast Reactor Exchange Program.
- NEUTRONS - effects on uranium oxide (UO_2) pins, (E)
 NEUTRONS - effects on tensile properties of Type 304 and Type 316 stainless steel, (E)
 REACTOR FUEL ELEMENTS - radiation testing of uranium oxide (UO_2) pins, for liquid metal cooled fast reactors, (E)
 REACTOR FUEL ELEMENTS - cladding for liquid metal cooled, neutron radiation effects on tensile properties of Type 304 and Type 316 stainless steel, (E)
 REACTORS, FAST - physics measurements for liquid sodium cooled
 REACTORS, FAST - fuel elements for liquid sodium cooled, irradiation testing of uranium oxide (UO_2) pin, (E)
 REACTORS, FAST - fuel elements for liquid sodium cooled, effects of coolant loss accident conditions on uranium oxide (UO_2) pins, (E)
 REACTORS, FAST - fuel element cladding for liquid sodium cooled, neutron radiation effects on tensile properties of Type 304 and Type 316 stainless steel, (E)
 REACTORS, FAST - coolant for liquid sodium cooled, heat transfer and hydraulic properties for liquid sodium
 REACTORS, LIQUID METAL-COOLED - physics measurements for fast
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast, irradiation testing of uranium oxide (UO_2) pin, (E)
 REACTORS, LIQUID METAL-COOLED - coolant for fast, heat transfer and hydraulic properties for liquid sodium
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast, effects of coolant loss accident conditions on uranium oxide (UO_2) pins, (E)
 REACTORS, LIQUID METAL-COOLED - fuel element cladding for fast, neutron radiation effects on tensile properties of Type 304 and Type 316 stainless steel, (E)
 REACTORS, LIQUID METAL-COOLED - coolant for fast, heat transfer and hydraulic properties of liquid sodium
 SODIUM - heat transfer properties of liquid
 STAINLESS STEEL - radiation effects on tensile properties of Type 304 and Type 316
 URANIUM OXIDES UO_2 - radiation effects on, neutron, (E)
- 472 26:35437 (RDT-P--4-1-T(3-72)) ELECTRIC HEATERS--SIMULATED LMFBR FUEL PINS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Mar 1972. 19p. RSO.
- HEATERS - design standards for electric, for simulating liquid metal cooled fuel pins
 HEATERS - performance standards for electric, for simulating liquid metal cooled fuel pins
 LIQUID METAL FAST BREEDER REACTOR - fuel pins for, design and performance standards for electric heater simulators for
 REACTOR FUEL ELEMENTS - simulators for liquid metal cooled pins, design and performance standards for electric heater
 STANDARDS - electric heater simulator, for liquid metal cooled fuel pins
- 473 26:35441 NUCLEAR FUEL ASSEMBLY. Cayol, Andre; Chalony, Andre; Clottes, Georges; (and others) (to Commissariat a l'Energie Atomique). French Patent 2,069,948. 10 Sep 1971. Filed 12 Dec 1969. (In French).
- REACTOR FUEL ELEMENTS - spacers for liquid metal cooled bundles of pin
 REACTORS, LIQUID METAL-COOLED - fuel assemblies for breeder, design characteristics of spacers for bundles of pin
- 474 26:35442 THEORETICAL HEAT TRANSFER PREDICTIONS FOR FINITE NUCLEAR FUEL ROD ASSEMBLIES. Ginsberg, T.; France, D. M. (Argonne National Lab., Ill.). Nucl. Sci. Eng.; 48: No. 1, 103-14(May 1972).
- REACTOR FUEL ELEMENTS - temperature distribution in liquid metal cooled assemblies, effects of configuration and flow rate on, (T)
 REACTORS, LIQUID METAL-COOLED - fuel element assemblies for, temperature distribution in square array, (T)

- 475 26:35446 IMPROVEMENTS IN AND RELATING TO NUCLEAR FUEL ELEMENTS. Dieumegard, Max (to Commissariat a l'Energie Atomique). British Patent 1,271,574. 19 Apr 1972. Priority date 23 Jul 1968, France.
- REACTOR FUEL ELEMENTS - design characteristics of vented, for liquid metal cooled fast reactors
REACTORS, FAST - fuel elements for liquid metal cooled, design characteristics of vented
REACTORS, LIQUID METAL-COOLED - fuel elements for fast, design characteristics of vented
- 476 26:35448 DEVELOPMENT AND RESULTS OF AN ELECTRICALLY HEATED SEVEN-PIN BUNDLE ASSEMBLY THERMAL HYDRAULIC TESTING IN LIQUID METALS. Collingham, R. E.; Yatabe, J. M.; Hill, V. R.; Thorne, W. L.; Creer, J. M. (WADCO Corp., Richland, Wash.). pp 41-9 of Liquid-Metal Heat Transfer and Fluid Dynamics. /Chen, John C. (ed.). New York; American Society of Mechanical Engineers (1970). From liquid metal heat transfer and fluid dynamics meeting; New York, N. Y. (30 Nov 1970).
- LIQUID METAL FAST BREEDER REACTOR - fuel pin assemblies for, development of rig for thermal hydraulic testing of electrically heated simulated, (E)
REACTOR FUEL ELEMENTS - testing of liquid metal cooled simulated seven pin bundles of, development of equipment for, (E)
REACTOR FUEL ELEMENTS - heat transfer from liquid metal cooled electrically heated simulated seven pin bundles of, measurement of
- 477 26:35450 FORMULATION OF PROBABILISTIC VISCO-ELASTIC MODELS FOR THE LONG-TERM DEFORMATION OF REACTOR FUEL ELEMENTS. Wang, P. Y.; Valentin, R. A. (Argonne National Lab., Ill.). Nucl. Eng. Des.; 18: No. 1, 97-114(1972). (CONF-710903--16). From 1. international conference on structural mechanics in reactor technology; Berlin, Germany (20 Sep 1971).
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, computational models for long-term deformation of
REACTOR FUEL ELEMENTS - deformation of fast, probabilistic visco-elastic models for analysis of long-term
- 478 26:35458 (WASH--1509) LIQUID METAL FAST BREEDER REACTOR DEMONSTRATION PLANT. Environmental Statement. (Atomic Energy Commission, Washington, D. C.). Apr 1972. 419p. Dep. NTIS.
- ENVIRONMENT - impact report, LMFBR Demonstration Plant
HEATED EFFLUENTS - effects on environment of power reactor
LIQUID METAL FAST BREEDER REACTOR - effluents from Demonstration Plant, effects on environment of radioactive and thermal
LIQUID METAL FAST BREEDER REACTOR - operation of Demonstration Plant, cost-benefit analysis for
- 479 26:35462 IMPROVEMENTS TO VAPOR GENERATORS. (to Babcock--Atlantique). French Patent 2,074,732. 8 Oct 1971. Filed 22 Jan 1970. (In French).
- BOILERS - design characteristics of vertical shell and tube, for liquid metal cooled reactors
REACTORS, LIQUID METAL-COOLED - steam generator for, design characteristics of vertical shell and tube
- 480 26:35463 STEAM GENERATORS FOR SODIUM-COOLED FAST REACTORS. Krizek, Vladimir; Dubsek, Frantisek. Jad. Energ.; 18: No. 2, 40-4(Feb 1972). (In Czech).
- BOILERS - development of U-shaped tube bundle, for liquid sodium cooled fast power reactors
REACTORS, FAST - steam generator for liquid sodium cooled power, development of U-shaped tube bundle
REACTORS, LIQUID METAL-COOLED - steam generator for fast power, development of U-shaped tube bundle
REACTORS, POWER - steam generator for liquid sodium cooled fast, development of U-shaped tube bundle
- 481 26:35478 (DOCKET-50016--157) ENRICO FERMI ATOMIC POWER PLANT. Calibration of Monitor of Main Condenser Cooling Water Discharge Delayed. (Power Reactor Development Co.,

Detroit, Mich.). 22 May 1972. 1p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - steam condenser cooling water discharge system for, delayed calibration of radiation monitors for main

- 482 26:35570 (ANL--7928) RESULTS OF MONTE CARLO CALCULATIONS FOR ZPPR ASSEMBLY 2. Fillmore, F. L. (Argonne National Lab., Ill.). Mar 1972. Contract W-31-109-eng-38. 24p. Dep. NTIS.

CRITICAL ASSEMBLIES - physics calculations for ZPPR Assembly 2, analysis of Monte Carlo

- 483 26:35572 (DOCKET-50231--118) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. License Amendment 2, Technical Specifications, Change 12. (Directorate of Licensing (AEC), Washington, D. C.). 12 May 1972. 73p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - shutdown status for, revised technical specifications for

- 484 26:35575 (HEDL-TME--72-22) SHUTDOWN REACTIVITY MEASUREMENTS IN FTR-CRITICAL EXPERIMENTS EVALUATION. Fleischman, R. M.; Bennett, R. A. (Hanford Engineering Development Lab., Richland, Wash.). Mar 1972. Contract AT(45-1)-2170. 34p. Dep. NTIS.

FAST TEST REACTOR - shutdown reactivity in, measurement of, (E/T)
REACTIVITY - measurement of shutdown, in fast liquid sodium cooled test reactor, (E/T)

- 485 26:35589 (IAEA--130, pp 201-14) SOME EXAMPLES OF RESEARCH REACTOR UTILIZATION COSTS AND TRENDS IN THE U.S. NOTES. Lennox, D. H. (International Atomic Energy Agency, Vienna (Austria)). 1971. (CONF-700720--8). INIS. From Engineering programs in research reactors symposium; Vienna, Austria (27 Jul 1970).

LIQUID METAL FAST BREEDER REACTOR - development of, engineering problems in
REACTORS, RESEARCH - utilization of U.S., trends and costs of
UNITED STATES - research reactor facilities in, trends and costs of utilization of

- 486 26:35636 TURBULENT FLOW THERMAL-HYDRAULIC CHARACTERISTICS OF HEXAGONAL PITCH FUEL ASSEMBLIES. Oberjohn, W. J. (Babcock and Wilcox Co., Alliance, Ohio). pp 30-40 of Liquid-Metal Heat Transfer and Fluid Dynamics. /Chen, John C. (ed.). New York; American Society of Mechanical Engineers (1970). From liquid metal heat transfer and fluid dynamics meeting; New York, N. Y. (30 Nov 1970).

HEAT TRANSFER - calculations for infinite arrays of fuel pins, derivation of equations for
LIQUID FLOW - velocity calculation for infinite arrays of fuel pins, derivation of
equations for
LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, thermal hydraulic characteristics
of coolant flow through hexagonal pitch
PRESSURE DROP - calculation of coolant, for flow through infinite arrays of fuel pins
TEMPERATURE - distribution in infinite arrays fuel pins method for calculation of

- 487 26:36003 (SFB-MHD--4) THEORY AND DESIGN OF THREE-LEGGED AC CONDUCTION PUMPS FOR LIQUID METALS. Schulz, T. (Technische Universitaet, Berlin (West Germany)). Jul 1971. 40p. (In German). Dep. NTIS (U. S. Sales Only).

ELECTROMAGNETIC PUMPS - design and theory of three-legged ac conduction, for liquid metals
METALS - pump for liquid, design and theory of three-legged ac

- 488 26:36481 (GEAP--13745) SEFOR FUEL ROD FABRICATION, 1970--1971. Farwell, B. E.; Eggert, W. K. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Jul 1971. Contract AT(04-3)-540. 240p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel rods for, description of fabrication methods for

489

26:36489 (ORNL-TM--3703) FUELS AND MATERIALS DEVELOPMENT PROGRAM QUARTERLY PROGRESS REPORT FOR PERIOD ENDING DECEMBER 31, 1971. Patriarca, P. (Oak Ridge National Lab., Tenn.). Mar 1972. Contract W-7405-eng-26. 292p. Dep. NTIS.

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- 490 26:36533 (LMEC--71-7) LIQUID METAL ENGINEERING CENTER (LMEC) SEMI-ANNUAL TECHNICAL PROGRESS REPORT, JANUARY--JUNE 1971. (Atomics International, Canoga Park, Calif. Liquid Metal Engineering Center). 15 Mar 1972. Contract AT(04-3)-700. 206p. Dep. NTIS.

CORROSION LOOPS - maintenance of Large Component Test Loop, p. 167-71
 FAST FLUX TEST FACILITY - components for, testing for compatibility with sodium
 FLOWMETERS - performance of large permanent magnet-type, for liquid metals, p. 134-40
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- 491 26:36544 OXIDATION OF METALS AND ALLOYS FOR CLADDING OF FAST REACTOR FUEL ELEMENTS BY OXYGEN-CONTAINING LIQUID SODIUM. Borgstedt, Hans U.; Frees, Guenter (Kernforschungszentrum, Karlsruhe, Ger.). pp 325-30 of Proceedings of the Fourth International Congress on Metallic Corrosion. /Hamner, Norman E. (ed.). Houston, Tex.; National Association of Corrosion Engineers (1972). From 4. International Metals Corrosion Congress proceedings; Amsterdam, Netherlands (7 Sep 1969).

CHROMIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, corrosion by oxygen-containing liquid sodium
 CHROMIUM ALLOYS AND SYSTEMS - Cr--V-base--Zr, corrosion by oxygen-containing liquid sodium
 REACTORS, FAST - fuel element cladding for sodium-cooled, corrosion studies on
 REACTORS, LIQUID METAL-COOLED - fuel element cladding for sodium, corrosion studies on
 SODIUM - corrosive effects of oxygen-containing, on chromium--titanium--vanadium-base and chromium--vanadium-base--zirconium alloys and stainless steel
 STAINLESS STEEL - corrosion by oxygen-containing liquid sodium
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 VANADIUM ALLOYS AND SYSTEMS; ZIRCONIUM ALLOYS AND SYSTEMS - Cr--V-base--Zr, corrosion by oxygen-containing liquid sodium

- 492 26:37738 (HEDL-TME--71-184) FTR SET 300-S, MULTIGROUP CROSS SECTIONS FOR FTR SHIELDING CALCULATIONS. Kidman, R. B.; Schenter, R. E. (Hanford Engineering Development Lab., Richland, Wash.). Dec 1971. Contract AT(45-1)-2170. 125p. Dep. NTIS.

FAST TEST REACTOR - shielding calculations for, ENDF/B Version II and ETOX code generation of 42-group cross section library of 53 isotopes for
 SHIELDING - calculations, 42-group cross section library for 53 isotopes by ETOX code and ENDF/B Version II

- 493 26:37808 (EUR--4731, pp 207-35) ANALYSIS OF SPACE-DEPENDENT DYNAMICS IN POWER REACTORS AND THE COMPUTER CODE SPEC-FR. Wakabayashi, Jiro; Yoshikawa, Hidekazu (Kyoto Univ. (Japan). Engineering Research Inst.). Feb 1972. From CREST meeting on reactivity effects in large power reactors; Ispra, Italy (28 Oct 1970). In Space dependent reactor dynamics.

LIQUID METAL FAST BREEDER REACTOR - excursions in, SPEC-FR code for analysis of space dependent

- 494 26:37815 SIMULATION EXPERIMENT ABOUT THE EFFECTS OF CORE HETEROGENEITY ON THE TRANSIENT PRESSURE BEHAVIOR IN THE HIGH-ENERGY EXCURSION OF FAST REACTOR. Kondo, Shunsuke; Mukai, Hiroshi; Imai, Tetsu (Tokyo Univ.). J. Nucl. Sci. Technol. (Tokyo); 9: No. 2, 127-9 (Feb 1972).

REACTOR SAFETY - explosions in liquid sodium cooled fast reactors, effects of core heterogeneity on transient pressure characteristics during, (E)
 REACTORS, FAST - excursions in liquid sodium cooled, effects of core heterogeneity on transient pressure characteristics during explosive, (E)
 REACTORS, LIQUID METAL-COOLED - excursions in fast, effects of core heterogeneity on transient pressure characteristics during explosive, (E)

- 495 26:37818 DEVELOPMENTAL STATUS OF FAST BREEDER REACTOR. Takehara, Ken; Yokozawa, Atsushi; Yamada, Keiji (Tokyo Shibaura Electric Co. Ltd., Kawasaki, Japan). Toshiba Rebyu; 27: No. 2, 142-6(Feb 1972). (In Japanese).

JAPANESE EXPERIMENTAL FAST REACTOR - core components for, design parameters and fabrication of
 JAPANESE EXPERIMENTAL FAST REACTOR - control elements for, design parameters and fabrication of
 REACTOR CONTROL ELEMENTS - design parameters for liquid sodium cooled fast breeder reactor
 REACTOR CONTROL ELEMENTS - fabrication of liquid sodium cooled fast breeder reactor

- 496 26:37822 (KFK--1541) SODIUM BOILING EXPERIMENTS IN A FUEL ELEMENT MODEL. Cramer, M.; Dorr, B. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Jan 1972. 51p. (In German). Dep. NTIS (U. S. Sales Only).

REACTOR FUEL ELEMENTS - deformation of, effects of liquid sodium boiling on, (E)
 REACTORS, BREEDER - coolant boiling in liquid sodium cooled fast, effects on fuel element deformation of, (E)
 REACTORS, BREEDER - fuel elements for liquid metal cooled fast, effects of liquid sodium boiling on deformation of, (E)
 REACTORS, FAST - coolant boiling in liquid sodium cooled breeder, effects on fuel element deformation of, (E)
 REACTORS, FAST - fuel elements for liquid metal cooled breeder, effects of liquid sodium boiling on deformation of, (E)
 REACTORS, LIQUID METAL-COOLED - coolant boiling in fast breeder, effects on fuel element deformation of, (E)
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast breeder, effects of liquid sodium boiling on deformation of, (E)
 SODIUM - boiling of liquid, effects on fuel element deformation of, (E)

- 497 26:37823 (RD/B/N--2094) BEHAVIOUR OF RADIOACTIVE ISOTOPES IN LIQUID METAL COOLED FAST REACTORS. PART IV. ADSORPTION OF CESIUM ON STAINLESS STEEL FROM SOLUTION IN LIQUID SODIUM. Evans, H. E.; Watson, W. R. (Central Electricity Generating Board, Berkeley (England). Berkeley Nuclear Labs.). Dec 1971. 17p. Dep. NTIS (U. S. Sales Only).

CESIUM ISOTOPES Cs-134 - sorption by nickel and stainless steels in liquid sodium cooled fast reactor systems
 NICKEL - sorptive properties for cesium-134 in liquid sodium cooled fast reactor systems
 REACTORS, FAST - radioisotopes in liquid sodium cooled, adsorption on nickel and stainless steel of
 REACTORS, LIQUID METAL-COOLED - radioisotopes in fast, adsorption on nickel and stainless steel of
 STAINLESS STEEL - sorptive properties for cesium-134 in liquid sodium cooled fast reactor systems

- 498 26:37825 (RDT-E--4-14-T(4-72)) VAPOR TRAP ASSEMBLIES FOR SODIUM SERVICE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Apr 1972. 45p. RSO.

REACTORS, LIQUID METAL-COOLED - cover gas system for, standard for design and fabrication of sodium vapor traps for
 STANDARDS - traps for sodium vapor, design and fabrication of
 TRAPS - design of sodium vapor, standard for
 TRAPS - fabrication of sodium vapor, standard for

- 499 26:37832 (GEAP--13765) DESIGN BASIS OF THE F9E GRID SPACED LMFBR DIAGNOSTIC ASSEMBLY FOR IRRADIATION TEST IN EBR-II. Pluta, P. R.; Meinhardt, W. G. (comps.) (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Dec 1971. Contract AT(04-3)-189. 165p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel assembly for, design basis for F9E grid spaced
 LIQUID METAL FAST BREEDER REACTOR - fuel assembly for, design basis for grid spaced
 REACTOR FUEL ELEMENTS - design basis for grid spaced assembly of rods, for liquid metal
 cooled fast breeder reactor

- 500 26:37835 ANTICAVITATION DEVICE. (to Commissariat a l'Energie Atomique). British Patent 1,273,925. 10 May 1972. Priority date 13 Feb 1970, France.

REACTOR FUEL ELEMENTS - coolant flow anticavitation structure for, liquid sodium
 REACTORS, LIQUID METAL-COOLED - fuel elements for, description of coolant flow
 anticavitation structure for

- 501 26:37838 NUCLEAR REACTOR FUEL ELEMENT. Cayol, Andre; Clottes, Georges (to Commissariat a l'Energie Atomique). British Patent 1,276,488. 1 Jun 1972. Priority date 22 May 1970, France.

REACTOR FUEL ELEMENTS - design characteristics of fission gas collection space for liquid
 sodium cooled pins
 REACTORS, FAST - fuel pins for liquid sodium cooled, description of fission gas collection
 space for
 REACTORS, LIQUID METAL-COOLED - fuel pins for fast, description of fission gas collection
 space for

- 502 26:37839 INSTALLATION FOR SURVEYING THE DISPLACEMENT OF A STRUCTURE IN A NUCLEAR
 REACTOR. Debergh, Philippe; Legrange, Maurice (to Commissariat a l'Energie Atomique).
 British Patent 1,273,940. 10 May 1972. Priority date 10 Apr 1970, France.

DISPLACEMENT GAGES - design characteristics of optical, for liquid sodium cooled fast
 reactor core support structure
 REACTORS, FAST - core support structure for liquid sodium cooled, description of optical
 displacement gage for
 REACTORS, LIQUID METAL-COOLED - core support structure for fast, description of optical
 displacement gage for

- 503 26:37846 REACTOR SYSTEMS SAFETY RESEARCH AT PNC. At. Jap.; 15: No. 8, 11-16(Aug 1971).

JAPANESE ADVANCED THERMAL REACTOR; JAPANESE EXPERIMENTAL FAST REACTOR; JAPANESE PROTOTYPE
 FAST BREEDER REACTOR - safety analysis for
 REACTOR SAFETY - characteristics of prototype and research reactors in Japan

- 504 26:37850 HYBRID SIMULATION OF A SODIUM-HEATED STEAM GENERATOR. ten Wolde, D. G.; van
 Wouw, H. J. Ingenieur (Utrecht); 83: W57-68(7 May 1971). (In Dutch).

BOILERS - dynamics for liquid sodium heated once-through steam generators, simulation of
 REACTORS, LIQUID METAL-COOLED - steam generators for liquid sodium cooled, hybrid computer
 simulation of dynamics for once-through

- 505 26:37887 (WASH--1203-71) OPERATING HISTORY OF U. S. NUCLEAR POWER REACTORS. (Division of
 Reactor Development and Technology (AEC), Washington, D. C.). 1971. 64p. GPO \$0.60.

ARMY REACTORS (MH-1); ARMY REACTORS (PM-3); ARMY REACTORS (SM-1); BIG ROCK POINT POWER
 REACTOR; CONNECTICUT YANKEE POWER REACTOR; DRESDEN POWER REACTOR, UNIT 1; DRESDEN POWER
 REACTOR, UNIT 2; DRESDEN POWER REACTOR, UNIT 3; EXPERIMENTAL BREEDER REACTOR-II; FERMI
 FAST BREEDER REACTOR; H.B. ROBINSON POWER REACTOR, UNIT 2; HANFORD PRODUCTION REACTORS
 (N); HUMBOLDT BAY POWER REACTOR; INDIAN POINT POWER REACTOR, UNIT 1; LA CROSSE
 BOILING-WATER REACTOR; MILLSTONE POINT POWER REACTOR, UNIT 1; MONTICELLO POWER REACTOR,
 UNIT 1; NINE MILE POINT POWER REACTOR, UNIT 1; OYSTER CREEK POWER REACTOR, UNIT 1
 PALISADES POWER REACTOR; PEACH BOTTOM POWER REACTOR, UNIT 1; POINT BEACH POWER REACTOR,
 UNIT 1 - operating history through 1971, summary of
 REACTORS, POWER - operating history of U.S., through 1971
 ROBERT E. GINNA POWER REACTOR, UNIT 1; SAN ONOFRE POWER REACTOR, UNIT 1; SAXTON POWER
 REACTOR; SHIPPINGPORT PRESSURIZED-WATER REACTOR - operating history through 1971, summary
 of
 UNITED STATES - power reactors in, operating history through 1971 of
 YANKEE POWER REACTOR - operating history through 1971, summary of

- 506 26:37898 (DOCKET-50016--158) ENRICO FERMI ATOMIC POWER PLANT. Steps Taken to Correct Item of Noncompliance Described in Letter of April 18, 1972. (Directorate of Regulatory Operations (AEC), Glen Ellyn, Ill. Region III). 17 May 1972. 6p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - diesel generator for, acknowledgment of failure to perform weekly test for
- 507 26:37973 (DOCKET-50231--119) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Outer Containment Building Vacuum Breaker Valve Malfunction. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 5 Jun 1972. 3p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - containment structure of, malfunction of vacuum breaker valves for
- 508 26:37974 (EURFNR--1005) INVESTIGATION OF REACTOR PHYSICS PROPERTIES OF THE SNEAK 3A-2 CORE IN THE FAST THERMAL REACTOR STARK, ASSEMBLY 6. Meister, H. (comp.) (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Neutronenphysik und Reaktortechnik). Dec 1971. 90p. (KFK--1539). Dep. NTIS (U. S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.
- REACTORS, RESEARCH - core physics for STARK Assembly 6, comparison with SNEAK Assembly 3A-2 of, (E/T)
- 509 26:37975 (GEAP--13762) SEFOR TRANSIENT FLUX DETECTION SYSTEM. Wittry, M. B.; Von Damm, C. A.; Neissel, J. P. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Dec 1971. Contract AT(04-3)-540. 55p. Dep. NTIS.
- RADIATION DETECTORS, FISSION CHAMBER - design characteristics of liquid sodium cooled fast reactor
- RADIATION DETECTORS, FISSION CHAMBER - performance tests for liquid sodium cooled fast reactor
- RADIATION DETECTORS, IONIZATION CHAMBER - design characteristics of liquid sodium cooled fast reactor
- RADIATION DETECTORS, IONIZATION CHAMBER - performance tests for liquid sodium cooled fast reactor
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - instrumentation for, design characteristics, circuit diagrams, and performance tests for transient γ and neutron flux detector system
- 510 26:37976 (GEAP--13771-1) CRITICAL EXPERIMENTS AND COOPERATIVE EVALUATIONS PROGRAM. First Quarterly Report, October--December 1971. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Jan 1972. Contract AT(04-3)-189. 37p. Dep. NTIS.
- CRITICAL ASSEMBLIES - control system simulation for ZPPR Assembly 3, configuration and physics measurements for
- DATA ACQUISITION SYSTEMS; DATA PROCESSING SYSTEMS - development of neutron cross section
- NEUTRON CROSS SECTIONS - calculation of, development of data acquisition and processing systems for
- 511 26:37981 (WASH--1510) FAST FLUX TEST FACILITY, RICHLAND, WASHINGTON. Environmental Statement. (Atomic Energy Commission, Washington, D. C.). May 1972. 317p. Dep. NTIS.
- ENVIRONMENT - impact report, Fast Flux Test Facility
- FAST FLUX TEST FACILITY - environmental effects of
- 512 26:38010 (EURFNR--944) APPROXIMATION OF THE STEADY-STATE, THREE-DIMENSIONAL MULTIGROUP NEUTRON DIFFUSION EQUATION BY A SYNTHESIS METHOD WITH THE KARLSRUHE SYNTHESIS PROGRAM KASY. Buckel, G. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Neutronenphysik und Reaktortechnik). Translation of report KFK--1349. 57p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program. Thesis. Submitted to Karlsruhe Univ., Ger.
- COMPUTER PROGRAMS - KASY, for synthesis method solution of three dimension multigroup neutron diffusion equation, FORTRAN 4 for IBM 360/65
- REACTORS - kinetics of, KASY computer program for synthesis method solution of three dimension multigroup neutron diffusion equation for

REACTORS, FAST - kinetics of liquid sodium cooled, computer program for synthesis method solution of three dimension multigroup neutron diffusion equation for
 REACTORS, LIQUID METAL-COOLED - kinetics of fast, computer program for synthesis method solution of three dimension multigroup neutron diffusion equation for

- 513 26:38217 (ORNL-TM--3071) LMFBR FUEL MATERIALS CONVERSION DEVELOPMENT: A PARTIAL TECHNICAL EVALUATION. Haas, Paul A. (comp.) (Oak Ridge National Lab., Tenn.). May 1972. Contract W-7405-eng-26. 98p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel recycle operations from reprocessing product to refabrication feed, evaluation of
 NUCLEAR MATERIALS MANAGEMENT - methods in LMFBR fuel recycle operations from reprocessing product to refabrication feed
 PLUTONIUM OXIDES PuO_2 - production from nitrate solution, evaluation of processes for
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , production from nitrate solutions, evaluation of processes for
 REACTOR FUELS - production of oxide, evaluation of operations from reprocessing product to refabrication feed for
 URANIUM OXIDES UO_2 - production from nitrate solution, evaluation of processes for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , production from nitrate solutions, evaluation of processes for
- 514 26:38367 ANALYTICAL DETERMINATION OF FREEZE-SEAL STEM LENGTH FOR SODIUM COMPONENTS. Cho, S. M. (Liquid Metal Engineering Center, Canoga Park, Calif.). Nucl. Sci. Eng.; 48: No. 3, 353-8(Jul 1972).
- LIQUID METAL FAST BREEDER REACTOR - cooling system components for, analytical determination of freeze-seal stem-length for
 SEALS AND GLANDS - design of stem for freeze-type, for liquid sodium systems
- 515 26:38429 AEC AUTHORIZING LEGISLATION FISCAL YEAR 1973. PART 5: VOLUME 1. ENVIRONMENTAL STATEMENTS 1 THROUGH 8. HEARINGS BEFORE THE JOINT COMMITTEE ON ATOMIC ENERGY, CONGRESS OF THE UNITED STATES, NINETY-SECOND CONGRESS, SECOND SESSION, JANUARY 26; February 3, 17, 22, 23, 29; March 1, 8, AND 9, 1972. Washington, D. C.; Joint Committee on Atomic Energy (1972). 1147p. (WASH--1521). GPO \$4.50.
- ATOMIC ENERGY COMMISSION (USA) - authorizing legislation for fiscal 1973, Feb. and Mar. 1972 JCAE hearings on
 CONTAMINATED SOIL REMOVAL FACILITY (RICHLAND) - operation of, environmental impact report on
 ENVIRONMENT - effects of USAEC projects on, Feb. and Mar. 1972 JCAE hearings on
 ENVIRONMENT - impact report on, Radioactive Waste Evaporator and Auxiliaries (Richland, Wash.)
 ENVIRONMENT - impact report on, Contaminated Soil Removal Facility (Richland, Wash.)
 ENVIRONMENT - impact report on, Radioactive Solid Waste Volume Reduction Facility (Los Alamos, N.M.)
 ENVIRONMENT - impact report on, land acquisition at Rocky Flats Plant, Colo.
 ENVIRONMENT - impact report on, Plutonium Recovery Facility (Rocky Flats Plant, Colo.)
 ENVIRONMENT - impact report on, Plutonium Facility (Los Alamos, N.M.)
 ENVIRONMENT - impact report on, Liquid Metal Fast Breeder Reactor Plant
 LIQUID METAL FAST BREEDER REACTOR; PLUTONIUM FACILITY (LOS ALAMOS); PLUTONIUM RECOVERY FACILITY (ROCKY FLATS); RADIOACTIVE WASTE EVAPORATORS (HANFORD); RADIOACTIVE WASTE VOLUME REDUCTION FACILITY (LOS ALAMOS) - operation of, environmental impact report on
 ROCKY FLATS PLANT (COLO.) - land acquisition at, environmental impact report on
- 516 26:38438 (CONF-720607--1) LOW LEVEL NEUTRON FLUX MONITORING SYSTEM FOR LMFBR'S. Ackermann, N. J. Jr.; Roux, D. P.; Clay, W. T.; Guerrant, G. C. (Oak Ridge National Lab., Tenn.). 1 Feb 1972. 4p. Dep. NTIS. From 18. annual American Nuclear Society conference; Las Vegas, NV. (18 Jun 1972).
- LIQUID METAL FAST BREEDER REACTOR - neutron flux monitoring in, fission chamber for low level
 NEUTRONS - flux monitoring in LMFBR, fission chamber for low level
 RADIATION DETECTORS, FISSION CHAMBER - development for low level neutron flux monitoring in LMFBR
- 517 26:38555 (NYO--3906-13) ULTRASONIC THERMOMETRY FOR LMFBR SYSTEMS. Final Report. Papadakis, E. P.; Lynnworth, L. C.; Patch, D. R.; Carnevale, E. H. (Panametrics, Inc.,

Waltham, Mass.). Jun 1972. Contract AT(30-1)-3906. 167p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - thermometry system for, development of ultrasonic THERMOMETRY - development of instruments for ultrasonic, for LMFBR

- 518 26:38943 (WARD--4210-T-3-5, pp 1.1-94) STRUCTURAL CHARACTERIZATION AND BIAxIAL MECHANICAL PROPERTIES OF VACUUM-MELTED TYPE 316 STAINLESS STEEL TUBING. Padden, T. R.; Ray, W. E.; Tarby, E. J.; Thomas, K. C. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Jul 1971. In Topical reports.

LIQUID METAL FAST BREEDER REACTOR - fuel element cladding for, properties of Type 316 stainless steel
STAINLESS STEEL - microstructure of tube of Type 316, studies on parameters of
STAINLESS STEEL - mechanical properties of tubes of Type 316, studies on parameters of biaxial

- 519 26:40203 (ANL--7926) ACTIVATION-RATE MEASUREMENTS IN THE ZPR-3 MOCKUP CRITICAL EXPERIMENTS. PART II. MEASUREMENTS OF FOIL-ACTIVATION RATES IN ASSEMBLY 61 OF ZPR-3 MOCKUP OF EBR-II WITH A NICKEL REFLECTOR. Heinrich, R. R.; Dudey, N. D.; Popek, R. J.; Larsen, R. P.; Oldham, R. D. (Argonne National Lab., Ill.). Mar 1972. Contract W-31-109-eng-38. 52p. Dep. NTIS.

CRITICAL ASSEMBLIES - neutron activation rate measurements in ZPR-3 mockup of EBR-II with nickel reflector
EXPERIMENTAL BREEDER REACTOR-II - neutron activation rates in nickel reflected mockup of, (E)

- 520 26:40215 (ORNL-TM--3845) HIGH-TEMPERATURE STRUCTURAL DESIGN METHODS FOR LMFBR COMPONENTS. Quarterly Progress Report for Period Ending March 31, 1972. Greenstreet, W. L.; Corum, J. M.; Pugh, C. E. (Oak Ridge National Lab., Tenn.). Jun 1972. Contract W-7405-eng-26. 144p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - pressure vessels for, high temperature properties of Type 304 stainless steel
LIQUID METAL FAST BREEDER REACTOR - core structures for, high temperature properties of Type 304 stainless steel
PRESSURE VESSELS - tensile properties of Type 304 stainless steel
STAINLESS STEEL - tensile properties of Type 304, high temperature

- 521 26:40216 (RD/B/N--1630) RADIAL DISTRIBUTION OF BUBBLES IN SODIUM FLOWING THROUGH HEATED CHANNELS. Holland, P. K. (Central Electricity Generating Board, Berkeley (England). Berkeley Nuclear Labs.). Mar 1970. 11p. Dep. NTIS (U. S. Sales Only).

BUBBLES - distribution in liquid sodium cooled fast reactor cooling channels of cover gas, calculation of radial
REACTORS, FAST - cooling channels for liquid sodium cooled, radial distribution of cover gas bubbles in turbulent flow of
REACTORS, LIQUID METAL-COOLED - cooling channels for fast, radial distribution of cover gas bubbles in turbulent flow of
SODIUM - coolant in fast reactors, calculation of radial distribution of cover gas bubbles in

- 522 26:40217 (RD/B/N--2259) NEW METHOD OF CONTINUOUSLY MONITORING THE VOID FRACTION OF FLOWING SODIUM. Hayes, D. J. (Central Electricity Generating Board, Berkeley (England). Berkeley Nuclear Labs.). Mar 1972. 16p. (CFR/EST/P--(72)78). Dep. NTIS (U. S. Sales Only).

REACTORS, LIQUID METAL-COOLED - coolant for, method for monitoring void fraction in liquid sodium
SODIUM - void fraction in flowing, oscillating pressure method for monitoring
VOID FRACTION - measurement in flowing sodium, oscillating pressure method for

- 523 26:40219 (RT/ING--(71)21) EXPERIMENTS RELATIVE TO THE THERMOHYDRAULICS OF SODIUM-COOLED FAST REACTORS. Iannuzzo, P.; Pezzilli, M. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 22 Dec 1971. 24p. (In Italian). (CONF-710952--3). Dep. NTIS (U. S. Sales Only). From Symposium of the Italian Thermotechnical Association; l'Aquila, Italy (21 Sep 1971).

REACTORS, FAST - coolant for liquid metal cooled, thermohydraulic characteristics of liquid sodium, (E)
 REACTORS, LIQUID METAL-COOLED - coolant for fast, thermohydraulic characteristics of liquid sodium, (E)
 SODIUM - thermohydraulic characteristics of liquid, (E)

- 524 26:40222 (ANL--7880) METHOD FOR CALCULATING DISTRIBUTIONS OF FLUX, POWER, AND BURNUP IN OXIDE SUBASSEMBLIES IRRADIATED IN EBR-II. Golden, G. H.; Miller, L. B. (Argonne National Lab., Ill.). Feb 1972. Contract W-31-109-eng-38. 43p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel element irradiation in, method for calculation of neutron flux, power, and burnup distributions in prototype mixed oxide, (T)
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, method for calculation of neutron flux, power, and burnup distributions in irradiated prototype, (T)
 NEUTRONS - flux distribution in fast reactor fuel elements, method for calculation of
 REACTOR FUEL ELEMENTS - neutron flux distributions in stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, method for calculation of
 REACTOR FUEL ELEMENTS - burnup distributions in stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, method for calculation of
 REACTOR FUEL ELEMENTS - power distributions in stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, method for calculation of

- 525 26:40224 (GEAP--10028-40) SODIUM-COOLED REACTORS FAST CERAMIC REACTOR DEVELOPMENT PROGRAM. Fortieth Quarterly Report, August--October 1971. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Nov 1971. Contract AT(04-3)-189. 174p. Dep. NTIS.

FAST CERAMIC REACTOR - fuel elements for, development during August to October 1971
 FAST CERAMIC REACTOR - core for, design and kinetics analysis of
 FAST CERAMIC REACTOR - safety of, transient overpower and loss of flow effects on HASTELLOY X; INCOLOY 800; INCONEL 625 - radiation effects on swelling and mechanical properties of, fast neutron, (E)
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, development of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)
 NEUTRONS, FAST - effects on Hastelloy X, Incoloy 800, Inconel 625, and stainless steels, (E)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects testing of fuels of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , properties of fuels of, mechanical, physical, and thermal, (E)
 REACTOR FUEL ELEMENTS - performance of defected uranium oxide (UO_2)--plutonium oxide (PuO_2), in flowing sodium, (E)
 REACTOR FUEL ELEMENTS - cladding for uranium oxide (UO_2)--plutonium oxide (PuO_2) fast, development and testing of stainless steel
 REACTOR FUEL ELEMENTS - radiation effects testing of uranium oxide (UO_2)--plutonium oxide (PuO_2) fast
 STAINLESS STEEL - radiation effects on swelling and mechanical properties of Type 304, Type 316, and Type 321, fast neutron, (E)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects testing of fuels of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , properties of fuels of, mechanical, physical, and thermal, (E)

- 526 26:40225 (GEAP--13760) SEFOR FUEL ROD FABRICATION, 1967--1968. Johnson, M. L.; Lannin, T. E.; Pflasterer, G. R.; Wallace, R. E. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Jan 1972. Contract AT(04-3)-540. 372p. Dep. NTIS.

PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of pellets of, quality control problems in
 REACTOR FUEL ELEMENTS - fabrication of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) rod type, quality control problems in
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements for, fabrication of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of pellets of, quality control problems in

- 527 26:40233 BEHAVIOR OF GAS BUBBLES IN THE SODIUM-BONDED, CARBIDE-FILLED FUEL RODS OF A FAST BREEDER. Schoeneberg, R.; Ernst, H. (AEG-Telefunken, Grosswetzheim, Ger.). Nucl. Eng. Des.; 21: No. 1, 65-71(1972). (In German).

REACTOR FUEL ELEMENTS - bubble growth in sodium bonded, effects of transients on fission gas and sodium vapor, (T)

REACTORS, BREEDER; REACTORS, FAST - fuel elements for, effects of transients on gas bubble growth in sodium bonded, (T)

- 528 26:40234 ADVANTAGES OF PRIMARY SYSTEM FLOW CONTROL DURING REACTOR SCRAM IN AN LMFBR. Metevia, William J.; Gilbertson, Jon C. (Combustion Engineering, Inc., Windsor, Conn.). Nucl. Technol.; 15: No. 3, 93-8(Jul 1972).
- LIQUID METAL FAST BREEDER REACTOR - scram of, effects of primary coolant flow control on core thermal stresses following, (T)
LIQUID METAL FAST BREEDER REACTOR - cooling system of, effects of primary coolant flow control following scram on thermal stresses in
- 529 26:40246 (CONF-720109--2) THERMAL INTERACTION BETWEEN MOLTEN ALUMINA AND LIQUID SODIUM. Pottinger, R. C.; Rees, N. J. M.; Turner, R. G. (United Kingdom Atomic Energy Authority, Foulness (England)). [1972]. 16p. Dep. NTIS (U. S. Sales Only). From Meeting on sodium-fuel interaction in fast reactor safety; Grenoble, France (25 Jan 1972).
- ALUMINUM OXIDES - thermal interactions with liquid sodium, transient pressures from, (E)
REACTOR SAFETY - core meltdown in sodium cooled reactors, aluminum oxide--sodium explosions resulting from
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core meltdown accidents in sodium cooled, fuel-sodium interactions during, (E)
SODIUM - thermal interactions with molten aluminum oxides, transient pressures from, (E)
- 530 26:40391 (ANL--7919) RATE-LIMITED MODEL OF MOLTEN FUEL/COOLANT INTERACTIONS: MODEL DEVELOPMENT AND PRELIMINARY CALCULATIONS. Cho, D. H.; Ivins, R. O.; Wright, R. W. (Argonne National Lab., Ill.). Mar 1972. Contract W-31-109-eng-38. 31p. Dep. NTIS.
- FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - fuel element failures in, rate-limited model of molten fuel and coolant interactions from
- 531 26:40393 (HEDL-TME--71-15) ANALYSIS OF FTR PHASE B CRITICAL EXPERIMENTS. PART 5. ZPPR 1 (ASSEMBLIES FTR-1 AND FTR-2). Omberg, R. P.; Bennett, R. A.; Nelson, J. V. (Hanford Engineering Development Lab., Richland, Wash.). Mar 1971. Contract AT(45-1)-2170. 52p. Dep. NTIS.
- FAST TEST REACTOR - control elements for, ZPPR 1 measurements of reactivity worth of boron carbide (B_4C) peripheral ring, (E/T)
REACTOR CONTROL ELEMENTS - reactivity worth of boron carbide (B_4C) peripheral ring, experimental evaluation of calculation methods for
- 532 26:40394 (HEDL-TME--71-21) FAST FLUX TEST FACILITY WELDING STANDARDS FOR THE DRIVER FUEL ASSEMBLY. Crawford, R. M.; Brown, W. F. (Hanford Engineering Development Lab., Richland, Wash.). Feb 1971. Contract AT(45-1)-2170. 27p. Dep. NTIS.
- FAST TEST REACTOR - fuel element assembly for, welding standards for drives
STANDARDS - welding for test reactor driver fuel element assembly
WELDING - standards for driver fuel element assemblies for fast test reactors
- 533 26:40395 (HEDL-TME--71-90) FFTF OUTLET REGION FEATURE MODEL. FINAL REPORT ON ALL AIR ENTRAINMENT TEST SERIES. Spalek, J.; Ballard, D. L.; Sweetin, L. R. (Hanford Engineering Development Lab., Richland, Wash.). May 1971. Contract AT(45-1)-2170. 155p. Dep. NTIS.
- FAST TEST REACTOR - coolant outlet pipes in, air entrainment in outlet region of, (E)
- 534 26:40396 (HEDL-TME--71-125(Rev.1)) FFTF DESIGN FLEXIBILITY FOR HYPOTHETICAL ACCIDENT MITIGATION. Peterson, R. E. (Hanford Engineering Development Lab., Richland, Wash.). 25 Oct 1971. Contract AT(45-1)-2170. 20p. Dep. NTIS.
- FAST TEST REACTOR - containment system for, performance during hypothetical core disruptive accident of
REACTOR CONTAINMENT SYSTEMS - performance during hypothetical core disruptive accident in liquid sodium cooled fast test reactor

- 535 26:40397 (HEDL-TME--72-51) FABRICATION OF AN INSTRUMENTED FTR FUEL ASSEMBLY FOR VIBRATION TESTING. Myers, R. L.; Sawtelle, G. K. (Hanford Engineering Development Lab., Richland, Wash.). May 1972. Contract AT(45-1)-2170. 83p. Dep. NTIS.
- FAST TEST REACTOR - fuel assemblies for, fabrication and vibration testing of instrumented
FAST TEST REACTOR - fuel assemblies for, design of instrumented
- 536 26:40398 (HEDL-TME--72-52) STREAMING ANALYSES FOR THE FTR FISSION GAS PLENUM REGION. Boulette, E. T. (Hanford Engineering Development Lab., Richland, Wash.). May 1972. Contract AT(45-1)-2170. 31p. Dep. NTIS.
- FAST TEST REACTOR - neutron streaming in, multigroup Monte Carlo calculations for
FAST TEST REACTOR - fission gas plenums for, calculation of neutron streaming through
NEUTRONS, EPITHERMAL; NEUTRONS, FAST; NEUTRONS, INTERMEDIATE; NEUTRONS, THERMAL
streaming through liquid sodium cooled fast reactor fission gas plenums, calculation of
- 537 26:40402 (ORNL-TM--3786) FAST REACTOR SHIELDING, ACTIVITY NO. 40 01 61, 189A NO. 10028. Monthly Progress Report, February 1972. Mynatt, F. R.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). 7 Apr 1972. 38p. Dep. NTIS.
- FAST TEST REACTOR - shielding for, development of
REACTORS, FAST - shielding of, February 1972 research progress on
SHIELDING - development of fast reactor, progress during February 1972
- 538 26:40405 (ORNL-TM--3857) FAST REACTOR SHIELDING MONTHLY PROGRESS REPORT FOR APRIL 1972, 189A NO. 10028, ACTIVITY NO. 40 01 61. Mynatt, F. R.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). Jun 1972. Contract W-7405-eng-26. 14p. Dep. NTIS.
- FAST TEST REACTOR - shielding for, development of
REACTORS, FAST - shielding of, April 1972 research progress on
SHIELDING - development of fast reactor, progress during April 1972
- 539 26:40406 (WARD--2171-7) ANALYTICAL EVALUATION OF FUEL FAILURE PROPAGATION FOR THE FAST FLUX TEST FACILITY. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Dec 1970. Contract AT(45-1)-2171. 164p. Dep. NTIS.
- FAST TEST REACTOR - fuel elements for, failure propagation characteristics of
REACTOR FUEL ELEMENTS - failure of liquid sodium cooled fast test, propagation
characteristics for
- 540 26:40407 (WARD--3684-5) EVALUATION OF COMPLIANT GRID-TYPE FUEL ROD SPACERS FOR FTR FUEL ASSEMBLY. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Nov 1968. Contract AT(30-1)-3684. 233p. Dep. NTIS.
- FAST TEST REACTOR - fuel pin spacers for, mechanical and thermal hydraulic characteristics of compliant grid type, (T)
REACTOR FUEL ELEMENTS - spacers for, mechanical and thermal hydraulic characteristics of compliant grid type, (T)
- 541 26:40408 (WARD--3684-5(App.)) EVALUATION OF COMPLIANT GRID-TYPE FUEL ROD SPACERS FOR FTR FUEL ASSEMBLY. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Nov 1968. Contract AT(30-1)-3684. 379p. Dep. NTIS.
- FAST TEST REACTOR - fuel elements for, stress analysis for compliant grid type spacers for
REACTOR FUEL ELEMENTS - spacers for liquid sodium cooled rods, stress analysis for
compliant grid type
- 542 26:40730 (ORNL--4436(Suppl.1)) AQUEOUS PROCESSING OF LMFBR FUELS: TECHNICAL ASSESSMENT AND EXPERIMENTAL PROGRAM DEFINITION. Sections 4.4 and 5.4. Goode, J. H.; Clinton, S. D. (comp. and ed.) (Oak Ridge National Lab., Tenn.). Jun 1972. Contract W-7405-eng-26. 47p. Dep. NTIS.
- FISSION PRODUCTS - separation of volatile, from LMFBR fuels, head-end voloxidation process for

LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing studies for, voloxidation for fission product removal in
 REACTOR FUEL ELEMENTS - reprocessing of LMFBR, voloxidation process for volatilization of fission products in head-end

- 543 26:40731 (ORNL-TM--2585) AQUEOUS PROCESSING OF LMFBR FUELS. Progress Report No. 2, April 1969. Unger, W. E.; Blanco, R. E.; Watson, C. D.; Crouse, D. J.; Irvine, A. R. (comps.) (Oak Ridge National Lab., Tenn.). May 1969. Contract W-7405-eng-26. 37p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - release in fuel reprocessing, methods for control of
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, research progress (April 1969) on aqueous
 MERCURY NITRATES - reactions of solutions of, with methyl iodide
 METHANE, IODO- - reactions with mercury nitrate solutions
 PLUTONIUM - oxidation of trivalent to tetravalent, by nitric oxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , dissolution in nitric acid
 PUREX PROCESS - solvent radiation doses in LMFBR flowsheet for
 REACTOR FUEL ELEMENTS - shipping spent oxide, use of mercury to evaluate sodium coolant for casks for
 REACTOR FUEL ELEMENTS - reprocessing of LMFBR, dissipation of decay heat and dismantling in head-end
 REACTOR FUELS - reprocessing of LMFBR, research progress (April 1969) in development of aqueous methods for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , dissolution in nitric acid
 ZIRCONIUM - precipitation from nitric acid solutions by TBP degradation products

- 544 26:40732 (ORNL-TM--2624) AQUEOUS PROCESSING OF LMFBR FUELS. Progress Report No. 3, May 1969. Unger, W. E.; Blanco, R. E.; Watson, C. D.; Crouse, D. J.; Irvine, A. R. (comps.) (Oak Ridge National Lab., Tenn.). Jun 1969. Contract W-7405-eng-26. 41p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - volatilization in oxide fuel dissolution in nitric acid
 IODINE - separation from gas streams by scrubbing with mercury nitrate solutions
 IODINE - separation from gas streams by sorption on iodized charcoal
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, research progress (May 1969) on aqueous
 MERCURY NITRATES - reactions with methyl iodide
 METHANE, IODO- - reactions with mercury nitrate solutions
 PHOSPHORIC ACID, TRIBUTYL ESTER - decomposition of, chromatographic studies on
 PUREX PROCESS - flowsheet development for LMFBR fuels
 REACTOR FUEL ELEMENTS - shipping spent oxide, evaluation of mercury and water as coolants in casks for
 REACTOR FUEL ELEMENTS - reprocessing of LMFBR, single pin shearing or melt decladding in head-end
 REACTOR FUELS - reprocessing of LMFBR, research progress (May 1969) on aqueous
 ZIRCONIUM - precipitation by TBP degradation products

- 545 26:40733 (ORNL-TM--2650) AQUEOUS PROCESSING OF LMFBR FUELS. Progress Report No. 4, June 1969. Unger, W. E.; Blanco, R. E.; Watson, C. D.; Crouse, D. J.; Irvine, A. R. (comps.) (Oak Ridge National Lab., Tenn.). Jul 1969. Contract W-7405-eng-26. 47p. Dep. NTIS.

FISSION PRODUCTS - volatilization from carbide fuel
 IODINE - separation from fuel reprocessing off gases
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, research progress (June 1969) on aqueous
 MERCURY NITRATES - reactions with methyl iodide
 METHANE, IODO- - reactions with mercury nitrate
 PLUTONIUM - separation from oxide fuel by solvent extraction using TBP
 PLUTONIUM CARBIDES - PuC -- UC , dissolution in nitric acid
 PUREX PROCESS - flowsheet development for LMFBR fuels
 REACTOR FUEL ELEMENTS - shipping of, temperature profile in mercury-filled cask for
 REACTOR FUEL ELEMENTS - reprocessing of LMFBR, temperature--time history for head-end
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, rotary shear or melt processes for head-end
 REACTOR FUELS - reprocessing of LMFBR, research progress (June 1969) in development of aqueous methods for
 REACTOR FUELS - shielding of spent LMFBR
 URANIUM - separation from oxide fuel by solvent extraction using TBP

URANIUM CARBIDES - PuC--UC, dissolution in nitric acid

- 546 26:40734 (ORNL-TM--2671) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT NO. 5. (Oak Ridge National Lab., Tenn.). Aug 1969. Contract W-7405-eng-26. 99p. Dep. NTIS.

IODINE - separation from off gases from fuel reprocessing
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (July 1969) for
 MERCURY NITRATES - reactions with methyl iodide
 METHANE, IODO- - reactions with mercury nitrate
 PLUTONIUM CARBIDES - PuC--UC, dissolution in nitric acid
 PLUTONIUM NITRATES - conversion to oxides in sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation from nitrate solutions by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of, obtained from sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, burnup studies on
 REACTOR FUEL ELEMENTS - shipping of spent LMFBR, heat dissipation tests on casks for
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, design of multipin
 shear and melt decladding studies for head-end
 REACTOR FUELS - reprocessing of LMFBR, research progress (July 1969) on aqueous
 URANIUM CARBIDES - PuC--UC, dissolution in nitric acid
 URANIUM NITRATES - conversion to oxides in sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation from nitrate solutions by sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of, obtained from sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, burnup studies on
 ZIRCONIUM - precipitation with TBP degradation products

- 547 26:40735 (ORNL-TM--2710) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR AUGUST, NO. 6. (Oak Ridge National Lab., Tenn.). Oct 1969. Contract W-7405-eng-26. 73p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - separation from fuel reprocessing effluents
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (August 1969) for
 MERCURY NITRATES - reactions with methyl iodide
 METHANE, IODO- - sorption on silver zeolite
 METHANE, IODO- - reactions with mercury nitrates
 PLUTONIUM - purification in Purex Process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation of powders of, from solutions from fuel
 reprocessing cycle
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of pellets of, in LMFBR fuel recycle
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 REACTOR FUEL ELEMENTS - shipping of spent LMFBR, cask evaluation for
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, head-end processes in
 REACTOR FUEL ELEMENTS - shielding requirements for spent LMFBR
 REACTOR FUELS - reprocessing of LMFBR, research progress (August 1969) on
 REACTOR FUELS - performance evaluation of oxide
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation of powders of, from solutions from fuel
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 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation by sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of pellets of, in LMFBR fuel recycle program

- 548 26:40736 (ORNL-TM--2748) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR SEPTEMBER, NO. 7. (Oak Ridge National Lab., Tenn.). Nov 1969. Contract W-7405-eng-26. 95p. Dep. NTIS.

IODINE - separation from reactor fuel reprocessing effluents
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Sept. 1969) for
 PLUTONIUM CARBIDES - PuC--UC, preparation by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation of powders of, from fuel reprocessing
 solutions
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation from nitrate solutions by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of pellets of, from materials from sol-gel
 process
 PUREX PROCESS - developments in, for LMFBR fuels
 REACTOR FUEL ELEMENTS - shipping of spent LMFBR, cask tests for
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, dismantling, shearing,
 and melting processes for head-end
 REACTOR FUEL ELEMENTS - shielding requirements for LMFBR
 REACTOR FUELS - reprocessing of LMFBR, research progress (Sept. 1969) on aqueous
 REACTOR FUELS - performance of oxide
 URANIUM CARBIDES - PuC--UC, preparation by sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation of powders of, from fuel reprocessing
 solutions
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation from nitrate solutions by sol-gel process

URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of pellets of, from materials from sol-gel process

- 549 26:40737 (ORNL-TM--2764) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR OCTOBER, NO. 8. (Oak Ridge National Lab., Tenn.). Nov 1969. Contract W-7405-eng-26. 101p. Dep. NTIS.

IODINE - volatilization of fission product, from oxide fuels
 IODINE - separation from fuel reprocessing effluents
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (October 1969) for
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation from nitrates from fuel reprocessing cycle
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of pellets of, from sol-gel-derived powders
 RARE GASES - volatilization of fission product, from oxide fuels
 REACTOR FUEL ELEMENTS - shipping of spent LMFBR, evaluation of casks for
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, dismantling, heat dissipation, and shearing for head-end
 REACTOR FUEL ELEMENTS - shipping of spent LMFBR, criticality calculations for
 REACTOR FUELS - reprocessing of LMFBR, research progress (October 1969) on aqueous
 REACTOR FUELS - performance evaluation of oxide
 URANIUM NITRIDES - dissolution in nitric acid
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation from nitrates from fuel reprocessing cycle
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of pellets of, from sol-gel-derived powders

- 550 26:40738 (ORNL-TM--2795) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR NOVEMBER 1969, NO. 9. (Oak Ridge National Lab., Tenn.). Dec 1969. Contract W-7405-eng-26. 84p. Dep. NTIS.

IODINE - separation from fuel reprocessing effluents
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Nov. 1969) for
 PHOSPHORIC ACID, TRIBUTYL ESTER - radiation stability
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation from nitrates from fuel recycle program by sol-gel process
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation of pellets of, from sol-gel process powders
 PUREX PROCESS - flowsheet modifications for LMFBR fuels
 REACTOR FUEL ELEMENTS - shipping of spent oxide, cask evaluation studies for
 REACTOR FUELS - reprocessing of LMFBR, research progress (Nov. 1969) on aqueous
 REACTOR FUELS - radioactivity and isotopic composition of spent LMFBR
 REACTOR FUELS - performance of
 TRITIUM - volatilization from oxide fuels
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation from nitrates from fuel recycle program by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation of pellets of, from sol-gel process powders

- 551 26:40739 (ORNL-TM--2819) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR DECEMBER 1969, NO. 10. (Oak Ridge National Lab., Tenn.). Jan 1970. Contract W-7405-eng-26. 76p. Dep. NTIS.

IODINE - separation from gases released in fuel reprocessing
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Dec. 1969) for
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation of powders and spheres of, from nitrate solutions from fuel reprocessing cycle
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of pellets of, from sol-gel-derived materials
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , irradiation testing of fuels of
 PUREX PROCESS - flowsheet modification for LMFBR fuels
 PUREX PROCESS - solvent stability in
 REACTOR FUEL ELEMENTS - shipping of spent oxide
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, head-end processes in
 REACTOR FUEL ELEMENTS - criticality studies on spent LMFBR
 REACTOR FUELS - reprocessing of LMFBR, research progress (Dec. 1969) on aqueous
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation of powders and spheres of, from nitrate solutions from fuel reprocessing cycle
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of pellets of, from sol-gel-derived materials
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , irradiation testing of fuels of

- 552 26:40764 (HEDL-TME--71-63) COMPARISON OF THE FLUTED VALVE AND ORIFICE PLATE PLUGGING METERS. Meadows, G. E. (Hanford Engineering Development Lab., Richland, Wash.). May 1971.

Contract AT(45-1)-2170. 32p. Dep. NTIS.

FAST FLUX TEST FACILITY - sodium loop for, testing of plugging meters for
GAGES AND METERS - performance of fluted valve and orifice plate, for plugging detection
in sodium loops

- 553 26:40765 (HEDL-TME--71-130) COMPARISON OF THE STACKED FOIL FILTER AND THE ORIFICE PLATE
PLUGGING TEMPERATURE INDICATORS. Meadows, G. E. (Hanford Engineering Lab., Richland,
Wash.). 10 Sep 1971. Contract AT(45-1)-2170. 21p. Dep. NTIS.

FAST FLUX TEST FACILITY - sodium loop for, performance testing of plugging temperature
indicators for
GAGES AND METERS - performance of orifice plate and stacked foil plugging temperature
indicators, for FFTF sodium support loops
SODIUM - plugging temperature indicators for test loop, performance testing of

- 554 26:41366 (HEDL-TME--71-99) FFTF SODIUM EROSION TESTS T-1-B AND T-1-D. Standley, F. R.
(Hanford Engineering Development Lab., Richland, Wash.). Jun 1971. Contract
AT(45-1)-2170. 126p. Dep. NTIS.

FAST FLUX TEST FACILITY - cooling system for, sodium erosion of stainless steel annuli in
SODIUM - effects on erosion of stainless steel annuli, dynamic tests at 750°F of
STAINLESS STEEL - erosion of annuli of Type 304, by sodium, dynamic tests at 750°F of

- 555 26:41457 HELIUM PRODUCTION IN THE STEELS 1.4988, 1.4981, AND 1.4970. Closs, K. D.
(Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt., Atomtech.; 17: No. 6, 315-16 (Jun
1972). (In German).

NEUTRONS, FAST - effects on brittleness, creep, porosity, and helium production in
stainless steel
STAINLESS STEEL - radioinduced helium in austenitic, relations of brittleness, creep, and
porosity with fast neutron
SNR REACTOR - fuel element cladding material for, radiation effects on
stainless steel

- 556 26:41742 YAVNOPOLYUSNYE MGD-NASOSY. (Salient-Pole MHD Pumps). Kalnin, T. K. Riga;
Izdatel'stvo Zinatne (1969). 172p.

ELECTROMAGNETIC PUMPS - book: Salient-pole MHD pumps

- 557 26:42475 NUCLEAR REACTORS. Ackroyd, Ronald Tunstal; Perks, Maurice Arthur (to United
Kingdom Atomic Energy Authority). U. S. Patent 3,660,227. 2 May 1972. Priority date 15
Nov 1968, Great Britain.

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core for sodium cooled,
with alternating breeder and driver fuel regions

- 558 26:42478 KNK-II: DESIGN AND STATE OF THE PROJECT. Marth, W. (Kernforschungszentrum,
Karlsruhe, Ger.); Stoehr, K. W.; Andrae, H. pp 754-7 of Reaktortagung, Bonn, 1971.
Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany
(30 Mar 1971). See CONF-710346.

KNK POWER REACTOR - core design for

- 559 26:42483 REACTIVITY EFFECTS OF CAVITIES IN SODIUM-COOLED FAST REACTORS. Stojadinovic,
A.; Voss, J.; Wehmann, U. (INTERATOM, Bensberg, Ger.). pp 102-5 of Reaktortagung, Bonn,
1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn,
Germany (30 Mar 1971). See CONF-710346.

CRITICAL ASSEMBLIES - reactivity void coefficients in SNEAK cores, (E/T)
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - reactivity void coefficients in sodium
cooled, upper limits of, (E/T)

- 560 26:42486 ANALYSIS OF SEFOR EXPERIMENTS. Wintzer, D.; Bogensberger, H. G. (Kernforschungszentrum, Karlsruhe, Ger.). pp 118-21 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuels for, reactivity worths and fission ratios of
- 561 26:42495 USE OF ACOUSTIC AND OPTICAL METHODS TO DETECT BOILING IN NUCLEAR REACTORS. Bonnet, Juan Amedee Jr. Ann Arbor, Mich.; Univ. of Michigan (1971). 105p. University Microfilms Order No. 72-14,811. Thesis.
- BOILING - detection in reactors, acoustic and optical methods for
REACTORS, LIQUID METAL-COOLED - coolant boiling in sodium cooled, acoustic method for detection of
REACTORS, PRESSURIZED-WATER; REACTORS, WATER-COOLED - coolant boiling in, acoustic and optical methods for detection of
- 562 26:42499 METHOD FOR THE QUICK DETECTION AND LOCALIZATION OF FUEL CAN DAMAGES IN SODIUM-COOLED FAST REACTORS. Gast, K. (Kernforschungszentrum, Karlsruhe, Ger.). pp 383-6 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- REACTOR FUEL ELEMENTS - failure of sodium cooled, method for detection and location of
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element failures in sodium cooled, method for detection and location of
- 563 26:42513 DIGITAL DYNAMIC DISTURBANCE SIMULATION FOR THE STEAM GENERATOR SYSTEM OF THE SNR. Evers, H. G. (INTERATOM, Bensberg, Ger.). pp 336-8 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- SNR REACTOR - steam generator for, digital simulation of flow disturbance in
- 564 26:42514 MODIFICATION OF THE DESIGN OF INTERMEDIATE HEAT EXCHANGERS OF SODIUM-COOLED REACTORS USING FERRITIC MATERIALS. Schnauder, H.; Mueller, R. A. (Kernforschungszentrum, Karlsruhe, Ger.). pp 339-42 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- HEAT EXCHANGERS - economics of sodium cooled, effects of ferritic steels use on
REACTORS, LIQUID METAL-COOLED - heat exchangers for sodium cooled, economic effects of ferritic steels use in
- 565 26:42515 CALCULATIONS OF THE PRESSURE FORMATION IN COMPRESSIBLE AGENTS DURING Na-H₂O REACTIONS. Huebner, R.; Schnitker, W. (INTERATOM, Bensberg, Ger.). pp 343-6 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- BOILERS - pressure in sodium heated, effects of sodium--water reactions on, (E/T)
REACTORS, LIQUID METAL-COOLED - steam generators for sodium cooled, pressure from sodium--water reactions in, (E/T)
- 566 26:42518 STATUS OF THE SODIUM MEASURING TECHNOLOGY IN GERMANY. Hans, R.; Lauhoff, T.; Schmidt, K. (INTERATOM, Bensberg, Ger.). pp 395-8 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- REACTORS, LIQUID METAL-COOLED - cooling systems for, development of devices for measurements in
- 567 26:42521 INHERENT PROPERTIES OF THE VARIOUS PRIMARY CIRCUIT DESIGNS OF SODIUM-COOLED REACTORS. Mueller, R. A. (Kernforschungszentrum, Karlsruhe, Ger.). pp 733-6 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From

Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, design analysis of primary

- 568 26:42527 POST-IRRADIATION STUDIES OF SNR-PROTOTYPE FUEL RODS OF A SEVEN-ROD BUNDLE. Geithoff, D. (Kernforschungszentrum, Karlsruhe, Ger.). pp 586-9 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

SNR REACTOR - fuel rod bundle for, post-irradiation examination of

- 569 26:42529 DEVELOPMENT AND DESIGN OF THE KNK-II FUEL ELEMENTS. Andrae, H.; Mayer, H.; Wenk, K. H. (INTERATOM, Bensberg, Ger.). pp 594-7 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

KNK POWER REACTOR - fuel elements for, design of

- 570 26:42534 HEAT TRANSFER FROM FUEL TO CLADDING IN FUEL PINS DESIGNED FOR SODIUM-COOLED FAST BREEDER REACTORS. Schad, G. (AEG-Telefunken, Grosswelzheim, Ger.). pp 726-9 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

REACTOR FUEL ELEMENTS - heat transfer from fuel to cladding in sodium cooled fast REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, heat transfer from fuel to cladding in

- 571 26:42535 PHYSICAL AND ECONOMICAL PROPERTIES OF CARBIDE FUELED BREEDER REACTORS FURNISHED WITH SODIUM- OR HELIUM-BOND FUEL PINS. Reinke, P.; Lill, G.; Ebeling, W. (AEG-Telefunken, Grosswelzheim, Ger.). pp 737-40 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

REACTOR FUEL ELEMENTS - performance of helium-bonded and sodium-bonded carbide, in sodium cooled breeders

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, performance of helium-bonded and sodium-bonded carbide

- 572 26:42538 MANIPULATING INSTALLATIONS FOR SODIUM-COOLED NUCLEAR POWER PLANTS. Kirchner, G.; Jansing, W. (INTERATOM, Bensberg, Ger.). pp 347-9 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

KNK POWER REACTOR; *** NO SUBJECT YAK *** - core components for, handling systems for

- 573 26:42539 CLEANING OF SODIUM-WETTED COMPONENTS IN SODIUM-COOLED REACTORS. Schwarzin, K.; Neeb, H. (INTERATOM, Bensberg, Ger.). pp 350-3 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

REACTORS, LIQUID METAL-COOLED - core components for sodium cooled, cleaning of sodium-wetted

- 574 26:42545 COMPARISON OF THE SAFETY OF SODIUM BREEDERS WITH CARBIDE OR OXIDE FUEL ELEMENTS. Ernst, H. (AEG-Telefunken, Grosswelzheim, Ger.). pp 257-60 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.

REACTORS, BREEDER - safety of sodium cooled fast, effects of carbide or oxide fuel elements on, (T)

REACTORS, FAST - safety of sodium cooled breeder, effects of carbide or oxide fuel elements on, (T)

REACTORS, LIQUID METAL-COOLED - safety of sodium cooled fast, effects of carbide or oxide fuel elements on, (T)

- 575 26:42546 ENVIRONMENTAL EXPOSURE FROM A SODIUM-COOLED FAST BREEDER POWER PLANT. Schikarski, W.; Wild, H. (Kernforschungszentrum, Karlsruhe, Ger.). pp 502-5 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - effluents from sodium cooled, release of radioactive and thermal
- 576 26:42591 PHYSICAL INVESTIGATION OF SODIUM-COOLED FAST CORES ARRANGED IN SMALL PLATE AND ROD CONFIGURATION. Helm, F.; Jourdan, G.; Plum, F. (Kernforschungszentrum, Karlsruhe, Ger.). pp 98-101 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- CRITICAL ASSEMBLIES - physics parameter measurements in SNEAK plate-and-rod configuration cores
- 577 26:42594 OPERATING EXPERIENCE CONCERNING THE FAST-ZERO-ENERGY-FACILITY KARLSRUHE (SNEAK). Bickel, W.; Wittek, G. (Kernforschungszentrum, Karlsruhe, Ger.). pp 474-7 of Reaktortagung, Bonn, 1971. Bonn; Deutsches Atomforum E. V. (1971). (In German). From Reactor meeting; Bonn, Germany (30 Mar 1971). See CONF-710346.
- CRITICAL ASSEMBLIES - operation of SNEAK, plutonium contamination and removal during
- 578 26:43021 EVALUATION OF SELF-POWERED DETECTORS IN EBR-II. Price, C. C.; Karvinen, J. R. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 366 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - neutron flux monitoring in, performance testing of self-powered detectors for
NEUTRONS - flux monitoring of, performance testing of self-powered detectors for in-core
RADIATION DETECTORS, SELF-POWERED - performance testing in LMFBR
- 579 26:43191 NEW THERMOMETRY FOR LIQUID SODIUM. Kuwabara, Jun (Japan Atomic Energy Research Inst., Tokai). IEEE (Inst. Elec. Electron. Eng.), Trans. Nucl. Sci.; NS-19: No. 1, 899-906 (Feb 1972). From Nuclear science symposium; San Francisco, Calif. (3 Nov 1971). See CONF-711111.
- LIQUID METAL FAST BREEDER REACTOR - temperature measurement in, development of thermocouples for
SODIUM - temperature measurements in liquid, development of thermocouples for
THERMOCOUPLES - development of Chromel/Na/Alumel, Chromel/Na/Chromel, and stainless steel/Na/stainless steel, for thermometry of liquid sodium
- 580 26:43474 (ANL--7916) SODIUM TECHNOLOGY QUARTERLY REPORT, OCTOBER--DECEMBER 1971. Kesser, G. M. (comp. and ed.) (Argonne National Lab., Ill.). May 1972. Contract W-31-109-eng-38. 69p. Dep. NTIS.
- CARBON - determination in liquid sodium, development of on-line meters for
DISTILLATION - evaluation of vacuum, for use in analysis of liquid sodium
EXPERIMENTAL BREEDER REACTOR-II - steam generator for, development of equipment for leak detection in
EXPERIMENTAL BREEDER REACTOR-II - coolant cover gas for, development of on-line impurity detection equipment for
FAST FLUX TEST FACILITY - coolant for, development of impurity testing instrument modules for sodium
HYDROGEN - determination in liquid sodium, development of on-line meters for
HYDROGEN - reactions with oxygen in liquid sodium
LIQUID METAL FAST BREEDER REACTOR - coolant sodium and cover gas for, development of on-line tritium monitor for
LIQUID METAL FAST BREEDER REACTOR - core components for, effects of sodium environment on
OXYGEN - determination in liquid sodium, development of on-line meters for
OXYGEN - determination in liquid sodium, development of uranium-getter method for
OXYGEN - reactions with hydrogen in liquid sodium

RADIOISOTOPE SCANNING - method for particle content in reactor coolant sodium
 RARE GASES - separation from coolant sodium, methods for
 REACTOR COOLANTS - cover gas and fission product control in liquid-sodium, development of methods for
 SODIUM - analysis of liquid, for carbon, hydrogen, and oxygen, development of on-line meters for
 SODIUM - impurities in stainless steel-loop, effects of transfer piping length on
 SODIUM - analysis of liquid, for oxygen, development of uranium-getter method for
 SODIUM - analysis of liquid, for particle content, gamma scanning of in-line filter method for
 SODIUM - reactions with steel, studies on carbon transfer in
 STEEL - carbon transfer reactions with liquid sodium
 TRITIUM - monitoring in LMFBR coolant sodium and cover gases, development of on-line meter for

- 581 26:43545 STUDY OF SHEAR STRESS OF SODIUM FOR DESIGN OF FREEZE-SEAL VALVES. Folkrod, J. R.; Misra, Balabhadra (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 236-7(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - valves for, development of sodium freeze-seal
 OXYGEN - effects on shear stress of sodium
 SODIUM - shear stress of, at -20 to 120°F, effects of oxygen content on
 VALVES - development of freeze-seal, measurement of sodium shear stress for

- 582 26:44607 CRITICAL EXPERIMENTS WITH MIXED OXIDES OF Pu AND U CONTAINING 8 AND 30 WT. PERCENT PLUTONIUM. Bierman, S. R.; Clayton, E. D. (Battelle-Northwest, Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 307-9(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICALITY - measurements for plutonium oxide (PuO_2)--uranium oxide (UO_2) fuel mixtures, (E)
 LIQUID METAL FAST BREEDER REACTOR - fuels for, criticality measurements for mixtures of plutonium oxide (PuO_2)--uranium oxide (UO_2), (E)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , criticality measurements of mixtures of, (E)
 REACTOR FUELS - criticality measurements on mixtures of plutonium oxide (PuO_2)--uranium oxide (UO_2), (E)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , criticality measurements of mixtures of, (E)

- 583 26:44609 ASPECTS OF THE GENERAL ELECTRIC COMPANY DEMONSTRATION PLANT CORE DESIGN. Pluta, P. R.; Greebler, P. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 331(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - physics measurements for 950 MW(t) demonstration
 LIQUID METAL FAST BREEDER REACTOR - core for 950 MW(t) demonstration, design characteristics for

- 584 26:44612 OPTIMIZATION STUDIES OF LMFBR POWER PLANTS: OBJECTIVES. Zaleski, P.; Rafalovitch, A.; Guigou, J. (Electricite de France, Clamart). Trans. Amer. Nucl. Soc.; 15: No. 1, 378-80(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - design parameters for, analysis of optimum economic

- 585 26:44613 OPTIMIZATION STUDIES OF LMFBR POWER STATIONS: OPTIMIZATION METHOD, MODEL OF THE PLANT. Zaleski, P.; Rafalovitch, A.; Guigou, J. (Electricite de France, Clamart). Trans. Amer. Nucl. Soc.; 15: No. 1, 380-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - design parameters for, calculation of optimum economic

- 586 26:44614 NUCLEAR DESIGN OF THE C-E 500-MW(e) LMFBR DEMONSTRATION PLANT. Caspersson, Sten (Combustion Engineering Inc., Windsor, Conn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 393-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - core physics for demonstration 500 MW(e)

- 587 26:44615 DESIGN FEATURES OF THE GE-LMFBR DEMONSTRATION PLANT. Fidrych, L. F.; Billuris, G.; Rubinstein, H. J. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 394-5(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - design parameters for demonstration

- 588 26:44618 TRANSPORT EFFECTS ON LMFBR DOPPLER COEFFICIENTS. Kelber, Charles N. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 455(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - Doppler coefficient for, comparison of diffusion theory and transport theory calculations of

- 589 26:44620 HETEROGENEITY EFFECTS IN THE MIT-BTF BLANKET NO. 2. Rogers, V. C. (Brigham Young Univ., Provo, Utah); Forbes, I. A.; Driscoll, M. J. Trans. Amer. Nucl. Soc.; 15: No. 1, 468(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - core blanket in, heterogeneity effects on plutonium production and neutron capture and fission rates for, (E/T)

- 590 26:44622 FEEDBACK ANALYSIS BY ROD-DROP AND ROD-OSCILLATOR EXPERIMENT. Larson, H. A.; Engen, I. A.; Hyndman, R. W. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 495(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - feedback transfer function in, rod drop and rod oscillator measurements of

- 591 26:44624 MEASUREMENTS OF THE ^{238}U DOPPLER EFFECT IN BORON-POISONED ZONES IN AN LMFBR-TYPE CRITICAL ASSEMBLY. Bohn, E. M.; Meyer, J. F.; Pond, R. B. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 502-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - Doppler effect in boron carbide (B_4C) poisoned, measurement of uranium-238

- 592 26:44629 BENCHMARK STUDY OF NEUTRON PENETRATION IN SODIUM. Su, Shiaw-der (Burns and Roe, Inc., Oradell, N. J.); Hungerford, Herbert E. Trans. Amer. Nucl. Soc.; 15: No. 1, 562(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - coolant of, neutron transmission in liquid sodium
NEUTRONS, EPITHERMAL; NEUTRONS, FAST; NEUTRONS, INTERMEDIATE - transmission in liquid sodium
SODIUM - neutron transmission in liquid, epithermal, intermediate, and fast

- 593 26:44635 LOW-LEVEL NEUTRON FLUX MONITORING SYSTEM FOR LMFBRs. Ackermann, N. J. Jr.; Roux, D. P.; Clay, W. T.; Guerrant, G. C. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 425(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - instrumentation for, development of low level neutron flux monitoring
RADIATION DETECTORS, FISSION CHAMBER - development for low level neutron flux monitoring in liquid metal cooled fast breeder reactors

- 594 26:44637 B_4C CONTROL ROD WORTHS AND REACTION RATES, SODIUM-VOID WORTHS, AND ^{238}U DOPPLER EFFECTS NEAR B_4C CONTROL RODS IN A TYPICAL LMFBR CORE. Meyer, J. F.; Bohn, E. M.;

Robinson, W. R. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 501-2(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - control rods for, reactivity worth of boron carbide (B_4C)

REACTOR CONTROL ELEMENTS - reactivity worth of boron carbide (B_4C), in liquid metal cooled fast breeder reactors

- 595 26:44639 SHEATHED-THERMOCOUPLE-ELECTRODE-TYPE INSTRUMENTATION FOR LMFBR INDIVIDUAL SUBASSEMBLY MONITORING. Kuwabara, Jun; Kato, Yoshio (Japan Atomic Energy Research Inst., Tokai). IEEE (Inst. Elec. Electron. Eng.), Trans. Nucl. Sci.; NS-19: No. 1, 793-806(Feb 1972). From Nuclear science symposium; San Francisco, Calif. (3 Nov 1971). See CONF-711111.

LIQUID METAL FAST BREEDER REACTOR - fuel subassembly monitoring in, electrode type sheathed thermocouples for

THERMOCOUPLES - design of sheathed chromel--alumel, for reactor fuel subassembly monitoring

- 596 26:44640 COMPOSITE TEMPERATURE--PRESSURE MEASUREMENT INSTRUMENT FOR ADVANCED REACTORS. Billeter, T. Roger (WADCO Corp., Richland, Wash.). IEEE (Inst. Elec. Electron. Eng.), Trans. Nucl. Sci.; NS-19: No. 1, 814-19(Feb 1972). From Nuclear science symposium; San Francisco, Calif. (3 Nov 1971). See CONF-711111.

CAVITY RESONATORS - operation of microwave, for in-core temperature and pressure measurements in sodium cooled reactors

LIQUID METAL FAST BREEDER REACTOR - coolant temperature and pressure measurement in, microwave cavity resonator for in-core

- 597 26:44650 TWO-DIMENSIONAL HYDRODYNAMIC CODE PRESSURE COMPUTATIONS FOR FAST REACTOR CONTAINMENT COMPARED WITH EXPERIMENTS. Ash, J. E.; Julke, R. T. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 360-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - containment structure for, effects of excursions on pressure distribution in, (E/T)

REACTOR CONTAINMENT STRUCTURES - pressure distribution in liquid metal cooled fast breeder reactor, effects of excursions on, (E/T)

- 598 26:44652 TRITIUM TRANSPORT IN LMFBRs. Taylor, G. R.; Peters, F. E. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 431-2(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - tritium in, release, transport, and removal of

TRITIUM - release in liquid metal cooled fast breeder reactors

TRITIUM - transport in liquid metal cooled fast breeder reactors

TRITIUM - removal from liquid metal cooled fast breeder reactors

- 599 26:44655 (TID--3334(Pt.2)) SODIUM TECHNOLOGY, 1962--1971. (Technical Information Center (AEC), Oak Ridge, Tenn.). Jun 1972. 1052p. Dep. NTIS.

BIBLIOGRAPHIES - on sodium technology

POTASSIUM ALLOYS AND SYSTEMS - K--Na, bibliography on

REACTORS, LIQUID METAL-COOLED - coolants for, bibliography on sodium and NaK

SODIUM - bibliography on

SODIUM ALLOYS AND SYSTEMS - K--Na, bibliography on

- 600 26:44656 NUCLEAR REACTOR CONTAINMENT AND NUCLEAR MATERIALS FRACTURE TOUGHNESS STANDARDS. Steele, L. E. (Naval Research Lab., Washington, D. C.). Trans. Amer. Nucl. Soc.; 15: No. 1, 225-6(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - cooling system for, fracture toughness of materials for

- 601 26:44657 BEHAVIOR OF IODINE IN SODIUM SYSTEMS. Cooper, M. H.; Grundy, B. R.; Taylor, G. R. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 232-3 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- IODINE - distribution in sodium cooled reactor cooling systems
LIQUID METAL FAST BREEDER REACTOR - cooling system of, behavior of iodine in sodium
- 602 26:44658 TRANSPORT OF ^{60}Co IN FLOWING, NONISOTHERMAL SODIUM. Roy, Prodyot (General Electric Co., San Jose, Calif.); Dutina, Dragomir; Armijo, Sam. Trans. Amer. Nucl. Soc.; 15: No. 1, 233-4 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- COBALT ISOTOPES Co-60 - transport in sodium cooled reactor cooling systems
LIQUID METAL FAST BREEDER REACTOR - cooling system of, cobalt-60 transport in sodium
- 603 26:44659 FISSION PRODUCT REMOVAL FROM SODIUM BY HYDRIDE SLAGGING. Colburn, R. P. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 235-6 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- CESIUM ISOTOPES Cs-137; IODINE ISOTOPES I-131 - removal from sodium cooled reactor cooling systems, use of hydride precipitation for
LIQUID METAL FAST BREEDER REACTOR - cooling system for, hydride precipitation method for fission product removal from sodium
- 604 26:44661 EFFECT OF GAS/VAPOR BLANKETING ON PRESSURE PULSES AND MECHANICAL WORK PRODUCED BY MOLTEN FUEL/COOLANT INTERACTIONS. Cho, D. H. (Argonne National Lab., Ill.); Kazimi, M. S.; Chen, W. L. Trans. Amer. Nucl. Soc.; 15: No. 1, 344-5 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - cooling system of, effects of gas and vapor blankets on pressure pulses from molten fuel and coolant interactions in
- 605 26:44662 FRAGMENTATION OF MOLTEN JETS. Bradley, R. H. (Manned Spacecraft Center, Houston, Tex.); Witte, L. C. Trans. Amer. Nucl. Soc.; 15: No. 1, 345-6 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- REACTORS, FAST - cooling system for, liquid metal and water simulation of molten jet fuel and coolant interaction in
- 606 26:44663 NUMERICAL CALCULATION OF VOIDING FOLLOWING AN LMFBR SUBASSEMBLY BLOCKAGE. Bohl, W. R.; Dunn, F. E.; Heames, T. J. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 351 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - coolant of, effects of subassembly coolant blockage on boiling of liquid sodium
SODIUM - boiling of liquid, effects of fast reactor subassembly coolant blockage on
- 607 26:44664 EVALUATION OF DRYOUT AND FLOW INSTABILITY IN THE WAKE DOWNSTREAM OF A BLOCKAGE IN AN LMFBR SUBASSEMBLY. Fauske, Hans K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 351-2 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - coolant in, effects of subassembly coolant blockage on boiling of liquid sodium
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, effects of subassembly coolant blockage on dryout of
REACTOR FUEL ELEMENTS - dryout of liquid sodium cooled, effects of fast reactor subassembly coolant blockage on
SODIUM - boiling of liquid, effects of fast reactor subassembly coolant blockage on

- 608 26:44665 COOLANT TEMPERATURE DOWNSTREAM OF A SUBASSEMBLY BLOCKAGE. Crawford, R. M.; Marr, W. W.; Padilla, A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 352-3(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - coolant in, effects of subassembly coolant blockage on temperature of liquid sodium
SODIUM - temperature of liquid, effects of fast reactor subassembly coolant blockage on

- 609 26:44666 EFFECT OF PARTIAL FLOW BLOCKAGE ON INLET-FLOW REDISTRIBUTION. Sha, William T. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 353-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - coolant in, effects of subassembly partial coolant blockage on inlet flow redistribution of liquid sodium
SODIUM - flow redistribution of liquid, effects of fast reactor subassembly partial coolant blockage on inlet

- 610 26:44667 PRESSURE-PULSE PROPAGATION FOLLOWING A MOLTEN FUEL-COOLANT INTERACTION IN PIPING NETWORKS. Chen, W. L. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 361-2(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - cooling system for, pressure pulse propagation following molten fuel and coolant interaction in

- 611 26:44669 SIMULATION OF THE CAVITATION OF A VARIABLE-SPEED CENTRIFUGAL PUMP FOLLOWING SUDDEN LOAD REMOVAL. Martin, J. K.; Additon, S. L. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 391 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

PUMPS (LIQUID METAL) - cavitation characteristics of variable speed centrifugal, effects of load drop on
REACTORS, LIQUID METAL-COOLED - pumps for, effects of load drop on cavitation characteristics of variable speed centrifugal

- 612 26:44672 FREE CONVECTION DISTORTION AND EDDY DIFFUSIVITY EFFECTS IN TURBULENT MERCURY HEAT TRANSFER. Jacoby, J. K.; Sesonke, Alexander (Purdue Univ., Lafayette, Ind.). Trans. Amer. Nucl. Soc.; 15: No. 1, 408-9 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FLUID FLOW - convection distortion effects in turbulent liquid metal
FLUID FLOW - eddy diffusivity effects in turbulent liquid metal
LIQUID METAL FAST BREEDER REACTOR - coolant flow in, free convection distortion and eddy diffusivity effects in turbulent

- 613 26:44673 INCIPIENT-BOILING SUPERHEAT IN A CONVECTIVE SODIUM SYSTEM. Henry, Robert E. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 410-11(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - cooling systems of incipient boiling superheat in liquid sodium convective
SODIUM - boiling superheat in convective systems of liquid, analysis of incipient

- 614 26:44674 TRANSIENT NONBOILING FORCED-CONVECTION HEAT TRANSFER. Stein, Ralph P. (Argonne National Lab., Ill.); Nelson, Martin E. Trans. Amer. Nucl. Soc.; 15: No. 1, 411(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - coolant for, transient nonboiling forced convection heat transfer in liquid sodium
SODIUM - heat transfer in liquid, analysis of transient nonboiling forced convection

- 615 26:44681 APPLICATION OF STATISTICS TO THE EBR-II DRIVER FUEL PROGRAM. Olson, N. J.; Walter, C. M. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 182(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, optimum burnup limit for driver, (E/T)
- 616 26:44682 LMFBR FUEL ROD DESIGN USING MONTE CARLO TECHNIQUES. Atcheson, D. B.; Temme, M.; Orr, G. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 182-3(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel rod failures in, Monte Carlo techniques for evaluation of
 REACTOR FUEL ELEMENTS - failures in fast reactor rod, Monte Carlo techniques for evaluation of
- 617 26:44683 INFLUENCE OF MATERIALS DATA UNCERTAINTY ON FUEL PIN PERFORMANCE PREDICTIONS. Homan, F. J. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 183-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel pins for, effects of materials property uncertainty on performance predictions of
 REACTOR FUEL ELEMENTS - performance of fast reactor pin, effects of materials uncertainty on predictions of
- 618 26:44684 FISSION PRODUCT RELEASE TO THE EBR-II COVER GAS FROM A MIXED-OXIDE FUEL ELEMENT WITH AN INTENTIONAL CLADDING DEFECT. Koenig, J. F.; Ebersole, E. R.; Ford, C. C.; (and others) (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 194(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- EXPERIMENTAL BREEDER REACTOR-II - fuel element cladding defect in, fission product release to cover gas from, (E)
 FISSION PRODUCTS - release through cladding defects in fast reactor fuel elements
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fission product release from cladding defects of fast reactor fuel elements of
 REACTOR FUEL ELEMENTS - fission product release from cladding defects of plutonium oxide (PuO_2)--uranium oxide (UO_2) fast
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fission product release from cladding defects of fast reactor fuel elements of
- 619 26:44685 REVIEW OF FISSION PRODUCT RELEASES TO THE PRIMARY SYSTEM OF EBR-II DURING 1971. Smith, R. R.; Brunson, G. S.; Ebersole, E. R.; Fryer, R. M.; Koenig, J. F. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 194-6(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- EXPERIMENTAL BREEDER REACTOR-II - fission product releases to primary cooling system of, review of 1971
- 620 26:44693 KINETICS OF FUEL TEMPERATURE DISTRIBUTION CHANGE DURING EARLY-IN-LIFE LMFBR OPERATION. Christensen, J. A.; Horn, G. R.; Lawrence, L. A. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 215-16(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel temperature distribution in, time dependence of, (T)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , temperature distribution in fast reactor fuel elements of, time dependence of, (T)
 REACTOR FUEL ELEMENTS - temperature distribution in mixed oxide fast, time dependence of, (T)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , temperature distribution in fast reactor fuel elements of, time dependence of, (T)

- 621 26:44694 OUT-OF-PILE INVESTIGATIONS OF FUEL/FISSION PRODUCT CLADDING REACTIONS. Rubin, B. F. (General Electric Co., Sunnyvale, Calif.); Aitken, E. A.; Evans, S. K. Trans. Amer. Nucl. Soc.; 15: No. 1, 218(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, fuel and fission product reactions with cladding for mixed oxide, (E)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , reactions with cladding of fast reactor fuel elements of, (E)
 REACTOR FUEL ELEMENTS - cladding for mixed oxide fast, fuel and fission product reactions with, (E)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , reactions with cladding of fast reactor fuel elements of, (E)
- 622 26:44695 POWER CYCLING EFFECTS ON FUEL-CLADDING GAP CLOSURE. Lawrence, L. A. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 223-4 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel pins for, power cycling effects on fuel-cladding gap closure of mixed oxide, (T)
 REACTOR FUEL ELEMENTS - power cycling of plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, fuel-cladding gap closure effects of, (T)
- 623 26:44697 PERFORMANCE OF EBR-II MARK-II DRIVER FUEL. Hofman, G. L.; Strain, R. V. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 256-7(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- EXPERIMENTAL BREEDER REACTOR-II - fuel elements of, radiation testing of Mark 2
 REACTOR FUEL ELEMENTS - radiation testing of liquid sodium cooled
- 624 26:44699 EFFECT OF STAINLESS-STEEL SWELLING ON THERMAL-HYDRAULIC CORE PERFORMANCE. Sha, W. T.; Marr, W. W. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 327-8(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel pin bundle of, effects of stainless steel swelling on thermal and hydraulic performance of
 REACTOR FUEL ELEMENTS - performance of liquid sodium cooled bundles of pin, effects of stainless steel swelling on thermal and hydraulic
 STAINLESS STEEL - swelling of, effects on thermal and hydraulic performance of liquid sodium cooled bundles of fuel pins
- 625 26:44700 INFLUENCE OF STRUCTURAL DEFORMATION ON LMFBR POWER AND TEMPERATURE COEFFICIENTS. Fox, J. N. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 328-9(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - core support structure for, effects on power and temperature coefficients of deformations in
- 626 26:44701 EFFECTS OF UNCERTAINTIES IN STEEL SWELLING AND CREEP ON LMFBR CHANNEL DESIGN. Marron, J. V.; Meinhardt, W. T. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 329-30(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - core duct in, effects of stainless steel creep and swelling on stresses in
 STAINLESS STEEL - creep in, effects on liquid metal cooled fast breeder reactor core duct stresses of
 STAINLESS STEEL - swelling in, effects on liquid metal cooled fast breeder reactor core duct stresses of
- 627 26:44703 PRISMATIC SHELLS WITH HEXAGONAL CROSS SECTION SUBJECTED TO CONCENTRATED LATERAL LOADS. Krajcinovic, Dusan (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15:

No. 1, 337-8(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel subassembly ducts in, lateral stress limits for hexagon shaped
 REACTOR FUEL ELEMENTS - ducts in liquid sodium cooled bundles of, lateral stress limits for hexagon shaped

- 628 26:44704 TRANSIENT OVERPOWER RESPONSE OF MIXED-OXIDE FUEL PINS. Culley, G. E.; Scott, J. H.; Hanson, J. E. (Hanford Engineering Development Lab., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 341-2(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel pins for, effects of overpower transients on performance of mixed oxide, (E)
 REACTOR FUEL ELEMENTS - performance of liquid sodium cooled mixed oxide pins, effects of overpower transients on, (E)

- 629 26:44705 MOLTEN FUEL RELOCATION IN AN OVER-ENRICHED FUEL PIN. Padilla, A. Jr.; Crawford, R. M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 342-3(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel pins for, molten fuel relocation in over-enriched
 REACTOR FUEL ELEMENTS - molten fuel relocation in over-enriched liquid sodium cooled pins

- 630 26:44706 BEHAVIOR OF SMALL AMOUNTS OF RELEASED MOLTEN FUEL IN AN LMFBR FUEL ASSEMBLY. Fauske, Hans K.; Cronenberg, August W. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 344(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel pins for, effects of molten fuel on performance of
 REACTOR FUEL ELEMENTS - molten fuel in liquid sodium cooled pins, effects on performance of

- 631 26:44707 EFFECTS OF MOLTEN-FUEL MOVEMENT DURING A FAST REACTOR OVERPOWER TRANSIENT. Walter, A. E.; Partain, W. L.; Simpson, D. E. (Hanford Engineering Development Lab., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 346-7(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel motion in, effects of overpower transients on molten

- 632 26:44708 HEAT TRANSFER COEFFICIENT CORRELATION FOR LIQUID-METAL SPRAY COOLING RELATIVE TO FISSION GAS JET IMPINGEMENT IN LMFBR SUBASSEMBLIES. Chawla, T. C.; Wilson, R. E.; van Erp, J. B. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 348-9(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel pins for, analysis of heat transfer coefficient during fission gas and liquid metal spray jet impingement on
 REACTOR FUEL ELEMENTS - heat transfer coefficient for liquid sodium cooled pins, during fission gas and liquid metal spray jet impingement

- 633 26:44709 EXPERIMENTAL EVALUATION OF FISSION GAS JET IMPINGEMENT IN LMFBR SUBASSEMBLIES. Wilson, R. E.; van Erp, J. B.; Chawla, T. C.; Kimont, E. L. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 349 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel pins for, effects of fission gas jet impingement on cladding temperature rise for
 REACTOR FUEL ELEMENTS - cladding for liquid sodium cooled pins, effects of fission gas jet impingement on temperature rise in

- 634 26:44710 POROUS, HEAT-GENERATING BLOCKAGE IN A FUEL SUBASSEMBLY. Marr, W. W.; Crawford, R. M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 350-1 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel pins for, porous heat generating blockage from failure of
 REACTOR FUEL ELEMENTS - failure of liquid sodium cooled pins, porous heat generating blockage from
- 635 26:44711 DYNAMIC RESPONSE OF CORE SUBASSEMBLIES. Kennedy, J. M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 356-7 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuel subassemblies of, propagation of stresses from failure of
 REACTOR FUEL ELEMENTS - failure of liquid sodium cooled, propagation of stresses from
- 636 26:44712 FUEL EXPANSION DYNAMICS FOLLOWING A VOIDING CORE DISASSEMBLY. Bohl, W. R.; Stevenson, M. G.; Fischer, G. J. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 358 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - fuels for, effects of voiding core disassembly conditions on expansion dynamics of vaporized
 REACTOR FUELS - expansion dynamics of vaporized, effects of voiding core disassembly conditions on
- 637 26:44713 EFFECT OF DISTRIBUTED VOIDS IN LMFBR CORE DISASSEMBLY CALCULATIONS. O'Dell, L. D.; Waltar, A. E. (Hanford Engineering Development Lab., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 358-9 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- LIQUID METAL FAST BREEDER REACTOR - core for, effects of voids distribution on disassembly of
- 638 26:44714 HIGH PERFORMANCE ELECTRIC HEATERS FOR LMFBR FUEL PIN SIMULATION. MacPherson, R. E.; Clark, D. L. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 366-7 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- HEATERS - development of high performance electric, for simulation of liquid metal cooled fast reactor fuel pins
 LIQUID METAL FAST BREEDER REACTOR - fuel pins for, development of high performance electric heaters for simulation of
 REACTOR FUEL ELEMENTS - simulation of liquid metal cooled pins, development of high performance electric heaters for
- 639 26:44715 NONDESTRUCTIVE TESTING AND POSTMORTEM EXAMINATION OF HEATERS FOR LMFBR FUEL PIN SIMULATION. Kimont, E. L.; Wilson, R. E.; van Erp, J. B. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 367-8 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- HEATERS - testing of electric, for simulation of liquid metal cooled fast reactor fuel pins
 HEATERS - inspection of electric, for simulation of liquid metal cooled fast reactor fuel pins
 LIQUID METAL FAST BREEDER REACTOR - fuel pins for, nondestructive testing and inspection of electric heaters for simulation of
 REACTOR FUEL ELEMENTS - simulation of liquid metal cooled pins, nondestructive testing and inspection of electric heaters for
- 640 26:44718 MODELING OF FLOW SWEEPING EFFECTS IN WIRE-WRAPPED ROD BUNDLES. Magee, P. M. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 406-7 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel rods for, coolant flow characteristics for wire wrapped
REACTOR FUEL ELEMENTS - coolant flow characteristics for wire wrapped rods, for liquid sodium cooled fast breeder reactor

- 641 26:44719 ORRIBLE: A COMPUTER PROGRAM FOR FLOW AND TEMPERATURE DISTRIBUTION IN LMFBR ROD BUNDLES. Wantland, J. L. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 407-8(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel rod bundles for, computer program calculations for flow distribution in blocked channels of
REACTOR FUEL ELEMENTS - coolant flow distribution in blocked channels of rod bundles, computer program calculations for liquid sodium

- 642 26:44720 TEMPERATURE DISTRIBUTION IN THE DUCT WALL OF A 19-ROD SIMULATED LMFBR FUEL ASSEMBLY. Fontana, M. H.; MacPherson, R. E.; Gnadt, P. A.; Wantland, J. L.; Parsly, L. F. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 409-10(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - fuel assembly for, temperature distribution in duct wall of 19 rod

- 643 26:44729 LMFBR POWER PLANT OPEN-REACTOR REFUELING, MAINTENANCE, AND RECOVERY STUDIES. Franckx, L. C.; Bashford, A. L.; Nemeth, L. J. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 395-6 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - refueling system for, design characteristics of open
LIQUID METAL FAST BREEDER REACTOR - maintenance access for, design characteristics of open
REACTOR LOADING MACHINES - design characteristics of open, for liquid metal cooled fast reactor

- 644 26:44738 MOLTEN-FUEL-COOLANT INTERACTIONS IN LMFBR SAFETY. Graham, John (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 313(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - accidents in, analysis of molten fuel and coolant interactions during
REACTOR SAFETY - accidents in liquid metal cooled fast breeder reactors, analysis of molten fuel and coolant interactions during

- 645 26:44739 LABORATORY TESTS OF MOLTEN-FUEL-COOLANT INTERACTIONS. Anderson, R. P.; Armstrong, D. R. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 313-14(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - accidents in, analysis of molten fuel and coolant interactions during, (E)
REACTOR SAFETY - accidents in liquid metal cooled fast breeder reactors, analysis of molten fuel and coolant interactions during, (E)

- 646 26:44740 MODELING OF MOLTEN-FUEL-COOLANT INTERACTIONS. Cho, D. H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 314-15(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - accidents in, analysis of molten fuel and coolant interactions during, (T)
REACTOR SAFETY - accidents in liquid metal cooled fast breeder reactors, analysis of molten fuel and coolant interactions during, (T)

- 647 26:44746 SEISMIC DESIGN CONSIDERATIONS FOR LMFBR NUCLEAR POWER PLANTS. Di Pol, Chester

V. (Atomics International, Canoga Park, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 317-18(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EARTHQUAKES - effects on safety requirements for liquid metal cooled fast breeder reactors
LIQUID METAL FAST BREEDER REACTOR - safety requirements for, effects of earthquake stresses on

- 648 26:44748 COMPARISON OF SAS2A SODIUM BOILING ANALYSIS WITH EXPERIMENT. Dunn, F. E.; Hoppner, G.; Heames, T. J.; Fischer, G. J. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 340-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - coolant boiling in, SAS2A code analysis of slug ejection during liquid sodium, (E/T)
SODIUM - boiling of liquid, analysis of slug ejection during, (E/T)

- 649 26:44789 (DOCKET-50016--159) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Water Present in Fuel Storage Tank for Diesel Generator. (Power Reactor Development Co., Detroit, Mich.). 26 Jun 1972. 2p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - diesel generator for, water in fuel storage tank for

- 650 26:44790 (DOCKET-50016--161) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for February 1972. (Power Reactor Development Co., Detroit, Mich.). 7 Jul 1972. 14p. (PRDC-EF--102). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during February 1972

- 651 26:44791 (DOCKET-50016--162) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for March 1972. (Power Reactor Development Co., Detroit, Mich.). Mar 1972. 14p. (PRDC-EF--103). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during March 1972

- 652 26:44938 TRITIUM DISTRIBUTION IN THE FFTF. Kabele, T. J. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 79-80(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - tritium distribution in
TRITIUM - distribution in liquid sodium cooled, fast test reactor

- 653 26:44941 IMPLICIT NUMERICAL METHOD FOR THE MOMENTUM PHASE OF REACTOR CONTAINMENT. Ash, J. E. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 260-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - accidents in, implicit numerical method for momentum containment phase of

- 654 26:44942 RADIOACTIVE GAS DIFFUSION INTO THE FTR COVER-GAS SYSTEM. Martonosi, J. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 263-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - coolant cover gas system for, radioactive gas diffusion into supply line for

- 655 26:44944 STRESS ANALYSIS OF FFTF CORE GRID SUPPORT STRUCTURE. Kennedy, J. M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 324(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - core grid support structure for, stress analysis of

- 656 26:44945 ANALYSIS OF A STATIC CORE-RESTRAINT SYSTEM FOR FTR. Fulford, P. J.; Bump, T. R.; Huebotter, P. R.; Schmitt, R. C. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 325-6(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - core restraint system for, design characteristics and creep analysis for

- 657 26:44946 FFTF CORE RESTRAINT EXPERIMENTAL PROGRAM. Besel, L. R.; Munro, C. A.; Kinsel, W. C. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 326-7(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - core restraint system for, design characteristics and performance requirements for, (E)

- 658 26:44947 DESIGN CONSIDERATIONS OF THE GRID-SPACED DIAGNOSTIC FUEL ASSEMBLY F9F. Kaplan, S.; Atcheson, D. B. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 331-2(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II; FAST TEST REACTOR - fuel assembly of, design characteristics of wave beam grid spacers for
REACTOR FUEL ELEMENTS - spacers for liquid sodium cooled fast, design characteristics of wave beam grid

- 659 26:44948 ENGINEERING BASIS FOR THE FIRST GE/BRD GRID-SPACED DIAGNOSTIC FUEL ASSEMBLY F9E. Meinhardt, W. G.; Pluta, P. R. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 332-3(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II; LIQUID METAL FAST BREEDER REACTOR - fuel assembly of, design characteristics and performance of wave beam grid spacers for
REACTOR FUEL ELEMENTS - spacers for liquid sodium cooled fast, design characteristics and performance of wave beam grid

- 660 26:44949 GE GRID-SPACED FTR DRIVER FUEL ASSEMBLY. Atcheson, D. B.; Kaplan, S.; Meinhardt, W. G.; Pluta, P. R. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 1, 333-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - fuel assemblies of, design characteristics of wave beam grid spacers for
REACTOR FUEL ELEMENTS - spacers for liquid sodium cooled fast, design characteristics of wave beam grid

- 661 26:44951 SUPER-PROMPT CRITICAL TRANSIENTS IN SEFOR. Kussmaul, G. (Kernforschungszentrum, Karlsruhe, Ger.); Noble, L. D.; Pflasterer, G. R. Trans. Amer. Nucl. Soc.; 15: No. 1, 339-40(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

REACTIVITY - transients in liquid sodium cooled fast test reactor, characteristics of super-prompt critical, (E/T)
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - transients in, characteristics of super-prompt critical, (E/T)

- 662 26:44953 PRESSURE PULSE ON THE SUBASSEMBLY WALL DUE TO FISSION GAS RELEASE FROM A FAILED FUEL PIN. Chang, L. K. (Argonne National Lab., Ill.); Golden, G. H.; Judd, A. M.; Koenig, J. R. Trans. Amer. Nucl. Soc.; 15: No. 1, 350(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - fuel pins for, fission gas pressure pulse on

subassemblies from failure of
 REACTOR FUEL ELEMENTS - failure of liquid sodium cooled pins, calculation of fission gas
 pressure pulse from

- 663 26:44954 DYNAMIC LOAD FACTORS FOR PLASTIC DEFORMATION OF HEXAGONAL SUBASSEMBLY CANS. Youngdahl, C. K.; Rosenberg, G. S. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 356(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - fuel subassembly cans for, dynamic load factors for plastic
 deformation of hexagonal
 REACTOR FUEL ELEMENTS - cladding for liquid sodium cooled, dynamic load factors for
 plastic deformation of hexagonal

- 664 26:44955 FLOW DISTRIBUTION AND FRICTION FACTOR FOR FFTF CONTROL ELEMENT. Keyes, R. E.; Collingham, R. E. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 405-6(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - control elements for, coolant flow characteristics through
 REACTOR CONTROL ELEMENTS - coolant flow characteristics through fast test reactor, liquid
 sodium

- 665 26:44956 SUBCRITICALITY MEASUREMENTS IN SEFOR. Buhl, A. R. (Oak Ridge National Lab., Tenn.); Ackermann, N. J. Jr.; Kryter, R. C.; Robinson, J. C. Trans. Amer. Nucl. Soc.; 15: No. 1, 423-4(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - instrumentation for subcriticality monitoring
 system of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - critical measurements in, instruments for sub-

- 666 26:44958 ULTRASONIC UNDER-SODIUM VIEWING SYSTEM DEVELOPMENT FOR THE FFTF. Ord, R. N.; Smith, R. W. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 426(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - remote viewing equipment for, development of under sodium ultrasonic
 scanner
 REMOTE-VIEWING EQUIPMENT - development of under sodium ultrasonic scanner, for liquid
 sodium cooled reactors

- 667 26:44959 EVALUATION OF EBR-II OPERATION WITH HIGHER WORTH CONTROL RODS. Cushman, R. A. (Argonne National Lab., Idaho Falls, Idaho); Sehgal, B. R.; Lowery, V. W. Trans. Amer. Nucl. Soc.; 15: No. 1, 429(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - control rods of, performance of high worth
 REACTOR CONTROL ELEMENTS - performance of high worth, in liquid sodium cooled research
 reactors

- 668 26:44960 RECENT XENON TAG DEVELOPMENTS AT EBR-II. Henault, P. B.; Ebersole, E. R.; Laug, M. T.; Smith, R. R. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 1, 429-30(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements of, operating experiences with xenon
 tagged
 REACTOR FUEL ELEMENTS - tagged liquid sodium cooled, operating experiences with xenon

- 669 26:44961 ANALYSES RELATED TO THE UNCERTAINTY IN EBR-II POWER LEVEL. Gopalakrishnan, A. (Argonne National Lab., Ill.); Golden, G. H.; Koenig, J. F.; Sackett, J. I.; Wallin, W. R. Trans. Amer. Nucl. Soc.; 15: No. 1, 430-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - power level of, analysis of uncertainty in

- 670 26:44967 COMPARISON OF ENDF/B VERSIONS I, II, AND PRELIMINARY III. Karam, R. A. (Argonne National Lab., Ill.); Robinson, W. R.; Salvatores, M. Trans. Amer. Nucl. Soc.; 15: No. 1, 458-60(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - physics measurements for ZPR-6 Assemblies 6A and 7, comparison of ENDF/B calculations with, (E/T)

- 671 26:44968 HETEROGENEOUS CALCULATIONS OF ZPR-III ASSEMBLY 48 BY MONTE CARLO. Cramer, S. N. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 1, 460-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - physics calculations for ZPR-3 Assembly 48, Monte Carlo method for heterogeneous

- 672 26:44970 CENTRAL-ZONE PLATE/ROD HETEROGENEITY MEASUREMENTS IN THE DEMONSTRATION PLANT BENCHMARK CRITICAL. Amundson, P. I. (Argonne National Lab., Idaho Falls, Idaho); Davey, W. G.; Kaiser, R. E.; (and others). Trans. Amer. Nucl. Soc.; 15: No. 1, 466(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - reactivity of ZPPR Assembly 2, comparison of plate and rod configurations for, (E/T)

REACTIVITY - measurement of fast critical assembly, effect of plate and rod configurations on, (E/T)

- 673 26:44974 CHARACTERIZATION OF THE NUCLEAR ENVIRONMENT IN EBR-II WITH A FOUR-ROW STAINLESS-STEEL REFLECTOR. Miller, L. B. (Argonne National Lab., Ill.); Jarka, R. E.; Cushman, R. A.; Sehgal, B. R. Trans. Amer. Nucl. Soc.; 15: No. 1, 471-2(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - core of, effects of stainless steel reflector on LMFBR simulated

EXPERIMENTAL BREEDER REACTOR-II - neutron flux in, effects of stainless steel core reflector on

NEUTRONS - flux in liquid metal cooled fast breeder reactors, effects of stainless steel reflectors on

- 674 26:44975 FISSION ENERGY REDISTRIBUTION IN SMALL FAST REACTOR CONFIGURATIONS. Miller, L. B.; Gopalakrishnan, A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 487-8(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II; REACTORS, FAST - core of, effects of steel reflector on fission energy distribution in

- 675 26:44977 ANALYSIS OF THE SUPERPROMPT SEFOR TRANSIENTS. Harris, R. A. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 493(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - transients in, analysis of superprompt, (E/T)

- 676 26:44978 AN INTERCOMPARISON OF TECHNIQUES FOR INFERRING SUBCRITICALITY IN FAST REACTORS. Buhl, A. R. (Oak Ridge National Lab., Tenn.); Robinson, J. C.; Ackermann, N. J. Jr. Trans. Amer. Nucl. Soc.; 15: No. 1, 493-5(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - reactivity of, comparison of methods for calculation of subcritical REACTIVITY - calculation of fast reactor subcritical, comparison of methods for

REACTORS, FAST - reactivity of, comparison of methods for calculation of subcritical

- 677 26:44979 SEFOR CORE II DOPPLER AND FUEL TEMPERATURE MEASUREMENTS AT POWER. Noble, L. D. (General Electric Co., Sunnyvale, Calif.); Derby, S.; Sarma, B.; (and others). Trans. Amer. Nucl. Soc.; 15: No. 1, 500(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - Doppler coefficient measurements in Core 2, power
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel temperature measurements in Core 2, power
- 678 26:44980 SEFOR CORE II ZERO-POWER EXPERIMENTS. Noble, L. D. (General Electric Co., Sunnyvale, Calif.); Sarma, B. U. B.; Derby, S.; (and others). Trans. Amer. Nucl. Soc.; 15: No. 1, 500-1(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - physics measurements for Core 2, zero power
- 679 26:44982 ANALYSIS OF ENRICHMENT EXPERIMENTS IN THE FFTF ENGINEERING MOCKUP CRITICAL ASSEMBLY. Travelli, A.; Ulrich, A. J.; Beitel, J. C. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 507-8(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- CRITICAL ASSEMBLIES - physics measurements in ZPR-9, for fast test reactor fuel enrichment
FAST TEST REACTOR - fuel for, enrichment of, (E/T)
REACTOR FUELS - enrichment of fast test reactor, (E/T)
- 680 26:44983 FAST TEST REACTOR ENGINEERING MOCKUP CRITICAL ASSEMBLY AND ENRICHMENT EXPERIMENTS. Daughtry, J. W.; Pond, R. B.; Swanson, C. D.; Long, A. B. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 508-9(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- CRITICAL ASSEMBLIES - physics measurements in ZPR-9, for fast test reactor fuel enrichment and control rod worth
FAST TEST REACTOR - fuel for, enrichment of, (E)
FAST TEST REACTOR - control rods for, reactivity worth of, (E)
REACTOR CONTROL ELEMENTS - reactivity worth of fast test reactor, (E)
REACTOR FUELS - enrichment of fast test reactor, (E)
- 681 26:44984 ANALYSIS OF ZPR-9/ENGINEERING MOCKUP CRITICAL (EMC) EXPERIMENTS IN SUPPORT OF FTR FUEL ENRICHMENT SPECIFICATION. Ramchandran, S.; Madden, G. H. (Westinghouse Electric Corp., Pittsburgh). Trans. Amer. Nucl. Soc.; 15: No. 1, 509-10(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- CRITICAL ASSEMBLIES - physics measurements in ZPR-9, for fast test reactor fuel enrichment
FAST TEST REACTOR - fuel for, enrichment of, (E)
REACTOR FUELS - enrichment of fast test reactor, (E)
- 682 26:44985 EFFECT OF VOIDED FISSION-COUNTER TRAVERSE CHANNEL ON THE MEASURED POWER DISTRIBUTION IN THE FTR-EMC. Long, A. B.; Robinson, W. R.; Stanford, G. S.; Travelli, A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 510-11(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.
- CRITICAL ASSEMBLIES - power distribution in ZPR-9, performance of fission chamber and fission foils for measurement of
FAST TEST REACTOR - power distribution in, performance of fission chamber and fission foils for measurement of
RADIATION DETECTORS, FISSION CHAMBER; RADIATION DETECTORS, FISSION FOIL - performance for measurement of power distribution in fast critical assembly
- 683 26:44986 ANALYSIS OF Na VOID MEASUREMENTS IN SUPPORT OF FTR NUCLEAR DESIGN. Ramchandran, S.; Madden, G. H.; Rathbun, R. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer.

Nucl. Soc.; 15: No. 1, 511-12(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - coolant of ZPR-3 and ZPR-9, void measurements in liquid sodium
FAST TEST REACTOR - coolant of, void measurements for liquid sodium, (E/T)
SODIUM - void measurements in liquid, in fast test reactors, (E/T)

- 684 26:44987 FTR DOPPLER COEFFICIENT. Baloh, F. J.; Ramchandran, S. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 512-14(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - Doppler coefficient for, (T)

- 685 26:44988 ANALYSIS OF ZPR-9/ENGINEERING MOCKUP CRITICAL (EMC) EXPERIMENTS IN SUPPORT OF ¹⁰B LOADING IN FTR CONTROL RODS. Ramchandran, S.; Madden, G. H. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 514-15(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - physics measurements in ZPR-9, for boron-10 loading requirements in fast test reactor control elements
FAST TEST REACTOR - control rods for, boron-10 loading requirements in, (E/T)
REACTOR CONTROL ELEMENTS - composition of fast test reactor, requirements for boron-10, (E/T)

- 686 26:44989 THREE-DIMENSIONAL MULTIGROUP ANALYSES FOR FTR AND THE FTR ENGINEERING MOCKUP CRITICAL ASSEMBLY. Fleischman, R. M.; Nelson, J. V. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 515-16(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - physics calculations for, three dimensional multigroup analysis for, (T)

- 687 26:44990 EFFECT OF FUEL ENRICHMENTS ON FTR PERFORMANCE. Barthold, W. P.; Calamai, G. J.; Schellin, S. A. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 1, 516-17(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

FAST TEST REACTOR - fuels for, effects of enrichment on performance of
REACTOR FUELS - performance of fast test reactor, effects of enrichment on

- 688 26:44993 ANALYSIS OF SPECTRALLY SENSITIVE FOILS IN DEPLETED URANIUM NICKEL AND STEEL-REFLECTED EBR-II CRITICALS. Meneghetti, D.; Phillips, K. E. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 539-40(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - reaction rates in EBR-2 mockup in ZPR-3, activation foil and fission foil analysis of, (E/T)
EXPERIMENTAL BREEDER REACTOR-II - reaction rates in ZPR-3 mockups of, activation foil and fission foil analysis of, (E/T)
RADIATION DETECTORS, ACTIVATION; RADIATION DETECTORS, FISSION FOIL - use for reaction rates of critical assembly mockup of breeder reactor

- 689 26:44994 THREE-DIMENSIONAL ANALYSIS OF THE FTR/EMC SHIELD EXPERIMENT. Boulette, E. T. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 1, 549(Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

CRITICAL ASSEMBLIES - shielding for FTR mockup in ZPR-9, (E/T)
FAST TEST REACTOR - shielding for, ZPR-9 mockup for, (E/T)
SHIELDING - calculations for fast test reactor, in critical assembly mockup, (E/T)

- 690 26:44995 DEEP-PENETRATION IRRADIATION ENVIRONMENT IN EBR-II NEUTRON SHIELDS. Sehgal, B.

R.; Rempert, R. H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 449-50 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

EXPERIMENTAL BREEDER REACTOR-II - experimental facilities for, neutron flux distribution for in-shield

NEUTRONS - flux distribution for breeder reactor in-shield experimental facilities

REACTOR EXPERIMENTAL FACILITIES - neutron flux distribution for breeder reactor in-shield

- 691 26:45035 EVALUATION OF SPECTRAL FLUX SYNTHESIS FOR LMFBR APPLICATIONS. Greenspan, H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 1, 300-1 (Jun 1972). From 18. annual American Nuclear Society conference; Las Vegas, Nev. (18 Jun 1972). See CONF-720607.

LIQUID METAL FAST BREEDER REACTOR - neutron flux calculations in, spectral synthesis method for

- 692 26:45397 (CONF-720903--9) CONTINUOUS OR SEMICONTINUOUS LEACHER FOR LEACHING SOLUBLE CORE MATERIAL FROM SHEARED SPENT NUCLEAR FUEL TUBES. Odom, C. H. (Oak Ridge National Lab., Tenn.). 1972. 32p. Dep. NTIS. From 20. remote systems technology conference; Idaho Falls, ID. (17 Sep 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, dissolution following shearing in

REACTOR FUEL ELEMENTS - reprocessing of sheared LMFBR, continuous or semicontinuous leacher for dissolution in

- 693 26:45406 (ORNL-TM--2871) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR JANUARY 1970, NO. 11. (Oak Ridge National Lab., Tenn.). Feb 1970. Contract W-7405-eng-26. 102p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels

FISSION PRODUCTS; IODINE - release in reprocessing of LMFBR fuels

LIQUID METAL FAST BREEDER REACTOR - fuel cycle studies (Jan 1970) for

PLUTONIUM - reduction of hexavalent to tetravalent, using nitric oxide gas

PLUTONIUM - separation from spent oxide fuels by solvent extraction using TBP

PLUTONIUM CARBIDES - PuC--UC, preparation by sol-gel process

PLUTONIUM NITRATES - conversion to oxide in LMFBR fuel cycle

PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation of microspheres of, by CUSP-APEX mixed sol process

PLUTONIUM OXIDES PuO₂ - preparation of sols of, by alcohol extraction

PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of pellets from sol-gel-derived

PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, performance of fuels of

PUREX PROCESS - flowsheet development for LMFBR fuels

REACTOR FUEL ELEMENTS - shipment of spent LMFBR, criticality and cask evaluation for

REACTOR FUELS - reprocessing of LMFBR, progress report (Jan 1970) on

REACTOR FUELS - reprocessing of oxide, decay heat dissipation in head-end

REACTOR FUELS - reprocessing of oxide, continuous dissolution in

SOL-GEL PROCESS - development for LMFBR fuel recycle

URANIUM - separation from spent oxide fuels by solvent extraction using TBP

URANIUM CARBIDES - PuC--UC, preparation by sol-gel process

URANIUM OXIDES UO₂ - preparation of sols of

URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation of microspheres of, by CUSP-APEX mixed sol process

URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of pellets from sol-gel-derived

URANIUM OXIDES UO₂ - PuO₂--UO₂, performance of fuels of

- 694 26:45407 (ORNL-TM--2918) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR FEBRUARY 1970, NO. 12. (Oak Ridge National Lab., Tenn.). Mar 1970. Contract W-7405-eng-26. 89p. Dep. NTIS.

FISSION PRODUCTS; IODINE - chemistry in oxide fuel dissolution

IODINE - volatilization from nitric acid solutions

IODINE - separation from fuel reprocessing off-gases by sorption on zeolites or nitrate mercury

LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Feb. 1970) on

METHANE, IODO- - separation from fuel reprocessing off-gases by sorption on zeolites or mercury nitrate

PHOSPHORIC ACID, TRIBUTYL ESTER - stability in Purex Process

PLUTONIUM - purification in Purex Process

PLUTONIUM - shipping costs for
 PLUTONIUM OXIDES PuO_2 - production of sinterable powders of, from fuel reprocessing solutions
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation of sols of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 PUREX PROCESS - solvent stability in
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, criticality and heat dissipation studies on
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, shearing studies on
 REACTOR FUELS - reprocessing of LMFBR, research progress (Feb. 1970) on aqueous
 REACTOR FUELS - performance studies on oxide
 TRANSURANIUM PROCESSING PLANT - iodine evolution from dissolver solutions in
 URANIUM OXIDES UO_2 - production of sinterable powders of, from fuel reprocessing solutions
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation of sols of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 WEST VALLEY PROCESSING PLANT - evaluation for handling LMFBR fuels

695 26:45408 (ORNL-TM--2949) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR MARCH 1970, NO. 13. (Oak Ridge National Lab., Tenn.). Apr 1970. Contract W-7405-eng-26. 97p. Dep. NTIS.

CARBON - reactions with nitrogen and uranium dioxide
 FISSION PRODUCTS - solubility in nitric acid
 FORMIC ACID - reactions with plutonium dioxide sols
 IODINE - volatilization from spent oxide fuels in nitric acid dissolution
 IODINE - separation from off-gases in LMFBR fuel reprocessing
 IODINE - chemistry in acidic and alkaline solutions
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (March 1970) on
 METHANE, IODO- - separation from off-gases in LMFBR fuel reprocessing
 NEUTRONS - effects on plutonium dioxide--uranium dioxide fuels
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 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , dissolution of irradiated, in nitric acid
 PLUTONIUM OXIDES PuO_2 - preparation from fuel reprocessing solutions, evaluation of processes for
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - reactions of sols of, with formic acid
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation of microspheres of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of fuel rods of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on, neutron
 PUREX PROCESS - flowsheet development for LMFBR fuels
 RADIOCHEMICAL PROCESSING PLANTS - evaluation for reprocessing LMFBR spent fuels
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, criticality and heat dissipation studies for
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, shearing studies for
 REACTOR FUEL ELEMENTS - swelling and gas release in stainless steel-clad oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (March 1970) on aqueous
 REACTOR FUELS - photon spectra of spent LMFBR
 REACTOR FUELS - neutron source strength of spent LMFBR
 REACTOR FUELS - performance studies on oxide
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 URANIUM OXIDES UO_2 - preparation from fuel reprocessing solutions, evaluation of processes for
 URANIUM OXIDES UO_2 - reactions with carbon and nitrogen
 URANIUM OXIDES UO_2 - preparation by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation of microspheres of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of fuel rods of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on, neutron

696 26:45409 (ORNL-TM--2996) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR APRIL 1970, NO. 14. (Oak Ridge National Lab., Tenn.). May 1970. Contract W-7405-eng-26. 82p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 FISSION PRODUCTS - solubility in nitric acid
 IODINE - separation from fuel reprocessing off-gases
 IODINE - sorption on zeolites
 IODINE - chemistry of uncommon volatile species of
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (April 1970) on

NEUTRONS - effects on oxide fuels
 ORGANIC COMPOUNDS - oxidation in fuel reprocessing off-gas
 PLUTONIUM CARBONITRIDES - PuCN--UCN , preparation of
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, dissolution in nitric acid
 PLUTONIUM OXIDES PuO_2 - preparation from fuel reprocessing solutions, evaluation of methods for
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of sols of
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres from sols of
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, analysis by γ spectroscopy
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on, neutron
 PUREX PROCESS - flowsheet development for LMFBR fuels
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, criticality and heat dissipation studies on
 REACTOR FUEL ELEMENTS - cladding reaction with oxide fuels in
 REACTOR FUELS - reprocessing of LMFBR, research progress (April 1970) on aqueous
 REACTOR FUELS - dissolution of spent oxide, in nitric acid
 REACTOR FUELS - performance evaluation of oxide
 TRANSURANIUM PROCESSING PLANT - iodine evolution and trapping studies at
 TRITIUM - volatilization from oxide fuels
 URANIUM CARBONITRIDES - PuCN--UCN , preparation of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, dissolution in nitric acid
 URANIUM OXIDES UO_2 - preparation from fuel reprocessing solutions, evaluation of methods for
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of sols of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres from sols of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, analysis by γ spectroscopy
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on, neutron

697 26:45410 (ORNL-TM--3018) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR MAY 1970, NO. 15. (Oak Ridge National Lab., Tenn.). Jun 1970. Contract W-7405-eng-26. 94p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - chemistry in nitric acid solutions in fuel reprocessing
 IODINE - sorption on zeolites
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (May 1970) on
 METHANE, IODO- - sorption on zeolites
 ORGANIC COMPOUNDS - oxidation in fuel reprocessing cycle
 PLUTONIUM - purification in Purex Process
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres of
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on, neutron
 RADIOCHEMICAL PROCESSING PLANTS - evaluation for LMFBR spent fuel reprocessing
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask evaluation studies for
 REACTOR FUEL ELEMENTS - reprocessing of, volatile fission product removal in head-end
 REACTOR FUEL ELEMENTS - cladding reactions with oxide fuel in
 REACTOR FUEL ELEMENTS - cladding of oxide, economic and performance evaluation of materials for
 REACTOR FUELS - reprocessing of LMFBR, research progress (May 1970) on
 REACTOR FUELS - radiation properties and shielding of LMFBR
 REACTOR FUELS - performance of oxide
 URANIUM OXIDES UO_2 - preparation by sol-gel process
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation by sol-gel process
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on, neutron

698 26:45411 (ORNL-TM--3072) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR JUNE 1970, NO. 16. (Oak Ridge National Lab., Tenn.). Jul 1970. Contract W-7405-eng-26. 94p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 FISSION PRODUCTS - diffusion of gaseous, from oxide fuels
 IODINE - volatilization from nitric acid
 IODINE - separation from fuel reprocessing off-gas
 IODINE - sorption on zeolites
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (June 1970) on
 METHANE, IODO- - separation from fuel reprocessing off-gas
 METHANE, IODO- - sorption on zeolites
 NEUTRONS - effects on oxide fuels
 NITRIC ACID - reactions with sodium
 PLUTONIUM - purification in Purex Process

PLUTONIUM CARBONITRIDES - PuCN--UCN, preparation of
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, dissolution in nitric acid
 PLUTONIUM OXIDES PuO₂ - preparation from fuel reprocessing solutions, evaluation of methods for
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation and properties of microspheres of
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of sol-gel-derived, Sphere-Pac process for
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on, neutron
 RADIOCHEMICAL PROCESSING PLANTS - evaluation for LMFBR fuel reprocessing
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask design studies for
 REACTOR FUEL ELEMENTS - performance studies on stainless steel-clad oxide
 REACTOR FUEL ELEMENTS - fuel pellet densification in
 REACTOR FUELS - reprocessing of LMFBR, research progress (June 1970) on
 REACTOR FUELS - criticality studies on LMFBR
 REACTOR FUELS - fission product release from oxide
 SODIUM - reactions with nitric acid
 URANIUM CARBONITRIDES - PuCN--UCN, preparation of
 URANIUM OXIDES UO₂ - PuO₂--UO₂, dissolution in nitric acid
 URANIUM OXIDES UO₂ - preparation from fuel reprocessing solutions, evaluation of methods for
 URANIUM OXIDES UO₂ - preparation of sols of, CUSP process for
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation by sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation and properties of microspheres of
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of sol-gel-derived, Sphere-Pac process for
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on, neutron

699 26:45412 (ORNL-TM--3095) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR JULY 1970, NO. 17. (Oak Ridge National Lab., Tenn.). Aug 1970. Contract W-7405-eng-26. 76p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 FISSION PRODUCTS - diffusion from oxide fuel
 IODINE - release in fuel reprocessing cycle
 IODINE - spectra of species of, in nitric acid solutions
 IODINE - separation from gas streams by sorption on porous plastics or zeolites
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (July 1970) on
 NEUTRONS - effects on oxide fuels
 PLUTONIUM - purification in Purex Process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, dissolution in nitric acid
 PLUTONIUM OXIDES PuO₂ - preparation from solutions from fuel reprocessing cycle
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation of microspheres of
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on, neutron
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask evaluation studies for
 REACTOR FUEL ELEMENTS - thermal conductivity of sheared stainless steel-clad oxide
 REACTOR FUEL ELEMENTS - reprocessing of, volatilization of fission products in head-end
 REACTOR FUEL ELEMENTS - cladding mechanical interactions with fuel in
 REACTOR FUEL ELEMENTS - fission product release in oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (July 1970) on
 REACTOR FUELS - performance of oxide
 URANIUM OXIDES UO₂ - PuO₂--UO₂, dissolution in nitric acid
 URANIUM OXIDES UO₂ - preparation from solutions from fuel reprocessing cycle
 URANIUM OXIDES UO₂ - preparation of sols of, CUSP process for
 URANIUM OXIDES UO₂ - preparation of microspheres of
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation of microspheres of
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on, neutron

700 26:45413 (ORNL-TM--3127) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR AUGUST 1970, NO. 18. (Oak Ridge National Lab., Tenn.). Sep 1970. Contract W-7405-eng-26. 78p. Dep. NTIS.

FISSION PRODUCTS - reactions in oxide fuels
 IODINE - spectra in nitric acid solutions
 IODINE - volatilization from nitric acid solutions
 IODINE - separation from gas streams in fuel reprocessing
 IODINE - distribution between aqueous and gaseous phases
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (August 1970) on
 METHANE, IODO- - sorption on zeolites
 PLUTONIUM CARBONITRIDES - PuCN--UCN, preparation studies on
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, dissolution in nitric acid
 PLUTONIUM OXIDES PuO₂ - preparation from solutions from fuel reprocessing
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on sol-gel-derived, neutron

RADIOCHEMICAL PROCESSING PLANTS - evaluation for LMFBR spent fuel reprocessing
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask evaluation studies on
 REACTOR FUEL ELEMENTS - reprocessing of oxide, voloxidation fission product removal in head-end
 REACTOR FUELS - reprocessing of LMFBR, research progress (August 1970) on aqueous
 REACTOR FUELS - performance of oxide
 URANIUM CARBONITRIDES - PuCN--UCN, preparation studies on
 URANIUM OXIDES UO₂ - PuO₂--UO₂, dissolution in nitric acid
 URANIUM OXIDES UO₂ - preparation from solutions from fuel reprocessing
 URANIUM OXIDES UO₂ - preparation of sols of, CUSP process for
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation by sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on sol-gel-derived, neutron

701 26:45414 (ORNL-TM--3180) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR SEPTEMBER 1970, NO. 19. (Oak Ridge National Lab., Tenn.). Oct 1970. Contract W-7405-eng-26. 92p. Dep. NTIS.

DISSOLVERS - forward mixing in continuous
 IODINE - properties in nitric acid solutions
 IODINE - sorption on porous plastic
 IODINE - chemistry of uncommon volatile species of
 KRYPTON - volatilization from oxide fuels
 KRYPTON ISOTOPES Kr-85 - release from irradiated oxide fuels
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Sept. 1970) on
 METHANE, IODO- - reactions with nitric acid
 METHANE, IODO- - sorption on zeolites
 METHANE, IODO- - sorption on porous plastic
 NITRIC ACID - reactions with methyl iodide
 PLUTONIUM OXIDES PuO₂ - preparation from solutions from fuel reprocessing
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation by sol-gel process
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation of microspheres of
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on sol-gel-derived
 RARE EARTH OXIDES - rare earth oxides--UO₂, crystal structure of solid solutions in
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask evaluations for
 REACTOR FUEL ELEMENTS - reprocessing of, fission product removal by voloxidation in head-end
 REACTOR FUEL ELEMENTS - performance modeling of clad oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (Sept 1970) on aqueous
 SOLVENT EXTRACTION PROCESSES - evaluation for LMFBR fuel reprocessing
 TRITIUM - distribution in Zircaloy-clad uranium dioxide fuel rods
 URANIUM OXIDES UO₂ - tritium distribution in Zircaloy-clad fuel rods of
 URANIUM OXIDES UO₂ - preparation from solutions from fuel reprocessing
 URANIUM OXIDES UO₂ - preparation of sols of, CUSP process for
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation by sol-gel process
 URANIUM OXIDES UO₂ - PuO₂--UO₂, preparation of microspheres of
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 URANIUM OXIDES UO₂ - PuO₂--UO₂, radiation effects on sol-gel-derived
 URANIUM OXIDES UO₂ - rare earth oxides--UO₂, crystal structure of solid solutions in

702 26:45415 (ORNL-TM--3217) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR OCTOBER 1970, NO. 20. (Oak Ridge National Lab., Tenn.). Nov 1970. Contract W-7405-eng-26. 88p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - volatilization from nitric acid
 IODINE - spectra in nitric acid solutions
 IODINE - partition between aqueous and gaseous systems
 IODINE - chemistry of uncommon volatile species of
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Oct. 1970) on
 METHANE, IODO- - sorption from gas streams on solids
 METHANE, IODO- - reactions with nitric acid
 PLUTONIUM CARBONITRIDES - PuCN--UCN, preparation
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, dissolution in nitric acid
 PLUTONIUM OXIDES PuO₂ - preparation from solutions from fuel reprocessing
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, preparation of microspheres of
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, radiation effects on sol-gel-derived
 REACTOR FUEL ELEMENTS; REACTOR FUEL ELEMENTS - shipment of spent LMFBR, heat dissipation and shielding studies for
 REACTOR FUEL ELEMENTS - cladding mechanical interactions with oxide fuel in, FMODEL code prediction of
 REACTOR FUELS - reprocessing of LMFBR, research progress (Oct 1970) on aqueous

REACTOR FUELS - performance evaluation of oxide
 SOLVENT EXTRACTION PROCESSES - evaluation for reprocessing LMFBR fuels
 URANIUM CARBONITRIDES - PuCN--UCN , preparation
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, dissolution in nitric acid
 URANIUM OXIDES UO_2 - preparation from solutions from fuel reprocessing
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on sol-gel-derived

703 26:45416 (ORNL-TM--3250) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR NOVEMBER 1970, NO. 21. (Oak Ridge National Lab., Tenn.). Jan 1971. Contract W-7405-eng-26. 93p. Dep. NTIS.

AIR - separation of fission product iodine and tritium from
 FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - volatilization from nitric acid solutions
 IODINE - spectra in nitric acid solutions
 IODINE - separation from air by cold trapping
 IODINE - chemistry of uncommon volatile species of
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Nov. 1970) on
 METHANE, IODO- - separation from air by cold trapping
 METHANE, IODO- - sorption on solids, research progress on
 PLUTONIUM - purification in Purex Process
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, oxidation of unirradiated pellets of
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, dissolution in nitric acid
 PLUTONIUM OXIDES PuO_2 - preparation from solutions from fuel reprocessing
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, analysis of pellets of, for moisture
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on sol-gel-derived
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, heat dissipation studies for
 REACTOR FUEL ELEMENTS - reprocessing of clad oxide, head-end steps in
 REACTOR FUEL ELEMENTS - criticality studies on spent LMFBR
 REACTOR FUEL ELEMENTS - cladding mechanical interaction with fuel in
 REACTOR FUEL ELEMENTS - performance evaluation of clad oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (Nov. 1970) on aqueous
 SODIUM - reactions of, survey on
 TRITIUM - release in reprocessing of oxide fuels
 TRITIUM - separation from air by cold trapping
 URANIUM CARBONITRIDES - preparation of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, oxidation of unirradiated pellets of
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, dissolution in nitric acid
 URANIUM OXIDES UO_2 - preparation from solutions from fuel reprocessing
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation by sol-gel process
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, analysis of pellets of, for moisture
 URANIUM OXIDES UO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on sol-gel-derived

704 26:45417 (ORNL-TM--3281) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR DECEMBER 1970, NO. 22. (Oak Ridge National Lab., Tenn.). Jan 1971. Contract W-7405-eng-26. 85p. Dep. NTIS.

CARBON - reactions with nitrogen and uranium dioxide
 FISSION PRODUCTS - diffusion in oxide fuels
 IODINE - volatilization from nitric acid solutions
 IODINE - separation from fuel reprocessing off-gases
 IODINE - separation from aqueous solutions
 IODINE - spectra in alkaline and nitrate solutions
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Dec. 1970) on
 METHANE, IODO- - reactions with nitric acid
 NITROGEN - reactions with carbon and uranium dioxide
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, solubility in nitric acid
 PLUTONIUM OXIDES PuO_2 - preparation from solutions from fuel reprocessing
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, preparation of microspheres of
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, radiation effects on sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - $\text{PuO}_2\text{--UO}_2$, diffusion of fission products in
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask evaluation for
 REACTOR FUEL ELEMENTS - performance of clad oxide

REACTOR FUELS - reprocessing of LMFBR, research progress (Dec 1970) on
 REACTOR FUELS - radiation effects on restructuring of ceramic, model for
 SODIUM - reactions of, review on
 STAINLESS STEEL - creep of tubing of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , solubility in nitric acid
 URANIUM OXIDES UO_2 - preparation from solutions from fuel reprocessing
 URANIUM OXIDES UO_2 - reactions with carbon and nitrogen
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation of microspheres of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , diffusion of fission products in

- 705 26:45421 CONTAINMENT OF FISSION PRODUCT IODINE IN THE REPROCESSING OF LMFBR FUELS BY PYROCHEMICAL REACTIONS. Krumpelt, M.; Heiberger, J. J.; Maroni, V. A.; Steindler, M. J. (Argonne National Lab., Ill.). Nucl. Technol.; 15: No. 3, 391-5(Sep 1972).

CHLORIDES - reactions of molten, with zinc iodides
 FISSION PRODUCTS - containment in pyrochemical reprocessing of LMFBR fuels
 IODINE - reactions with liquid zinc
 IODINE - containment of fission product, in pyrochemical reprocessing of LMFBR fuels
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, containment of fission product iodine in pyrochemical
 REACTOR FUEL ELEMENTS - decladding of stainless steel-clad oxide, containment of fission product iodine in pyrochemical
 ZINC - reactions of liquid, with iodine
 ZINC IODIDES - reactions with molten chlorides

- 706 26:45960 NITRIDE FUELS: PROPERTIES AND POTENTIALS. Bauer, Arthur A. (Battelle Memorial Inst., Columbus, Ohio). Reactor Technol.; 15: No. 2, 87-104(1972).

LIQUID METAL FAST BREEDER REACTOR - fuels for, development of plutonium nitride--uranium nitride
 PLUTONIUM NITRIDES - PuN -- UN , preparation of reactor fuels of, review on
 PLUTONIUM NITRIDES - PuN -- UN , properties for fast breeder reactor fuels, review on
 REACTORS, ROCKET - fuels for, development of nitride
 URANIUM NITRIDES - PuN -- UN , preparation of reactor fuels of, review on
 URANIUM NITRIDES - preparation of reactor fuels of, review on
 URANIUM NITRIDES - PuN -- UN , properties for fast breeder reactor fuels, review on
 URANIUM NITRIDES - properties for space reactor fuels, review on

- 707 26:45974 PLUTONIUM FUEL PRODUCTION PLANT AND BREEDER PROJECTS. Vandem Bemden, E.; Lafontaine, I. (Societe Belge pour l'Industrie Nucleaire, Brussels). Energ. Nucl. (Paris); 14: No. 1, 29-32(1972). (In French).

PLUTONIUM - production of, development of plants for
 SNR REACTOR - fuels for, development of production plant for

- 708 26:46067 (HEDL-TME--71-126) RECOVERY AND RECRYSTALLIZATION OF PROTOTYPIC FTR FUEL CLADDING: 20 PERCENT CW 316 STAINLESS STEEL TUBING (RM-11). Paxton, M. M.; Holmes, J. J. (Hanford Engineering Development Lab., Richland, Wash.). Sep 1971. Contract AT(45-1)-2170. 25p. Dep. NTIS.

FAST TEST REACTOR - core components for, testing of Type 316 stainless steel for
 STAINLESS STEEL - tensile properties of cold worked Type 316, effects of stress and temperature on

- 709 26:47307 ON-LINE REACTIVITY FEEDBACK ANALYSIS OF EBR-II BY ROD DROP. Larson, H. A. (Argonne National Lab., Idaho Falls, Idaho); Engen, I. A. Nucl. Technol.; 15: No. 3, 462-4(Sep 1972).

EXPERIMENTAL BREEDER REACTOR-II - reactivity feedback analysis by rod drop in, digital data reduction procedure for on-line
 REACTIVITY - feedback analysis by rod drop in fast reactors, digital reduction procedure for on-line

- 710 26:47316 FAST BREEDER: SCHEDULE LENGTHENS, COST ESCALATES. Olds, F. C. Power Eng.; 76: No. 6, 33-5(Jun 1972).
- LIQUID METAL FAST BREEDER REACTOR - cost of, effects of development delays on
- 711 26:47327 (DOCKET-50016--160) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Execution of Periodic Test Activity Delayed by Piping Installation. (Power Reactor Development Co., Detroit, Mich.). 7 Jul 1972. 1p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - coolant storage tank for, request for delay in drainage test of emergency
- 712 26:47339 (DOCKET-50016--164) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for April 1972. (Power Reactor Development Co., Detroit, Mich.). 21 Jul 1972. 12p. (PRDC-EF--104). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during April 1972
- 713 26:47340 (DOCKET-50016--165) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Failure to Measure Radioactivity of Sodium at Specified Times. (Power Reactor Development Co., Detroit, Mich.). 2 Aug 1972. 1p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - coolant for, failure to measure radioactivity of liquid sodium
- 714 26:47390 (DOCKET-50016--163) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Answer to Show Cause Order and Amendment to Request for Extension of Expiration Date of Provisional Operating License. (Power Reactor Development Co., Detroit, Mich.). 20 Jul 1972. 43p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operation of, request for extension of license expiration date for
- 715 26:47581 (CEA-N--1483) MASURCA: STUDY OF PLUTONIUM--GRAPHITE AND URANIUM--GRAPHITE ASSEMBLIES. Tretiakoff, O.; Barberger, M.; Boyer, J.; (and others) (Commissariat a l'Energie Atomique, Saclay (France). Centre d'Etudes Nucleaires). Sep 1971. 132p. (In French). Dep. NTIS (U. S. Sales Only).
- CRITICAL ASSEMBLIES - physics measurements in MASURCA, for plutonium--graphite and uranium--graphite mixtures, (E)
REACTORS, FAST - physics measurements for plutonium--graphite and uranium--graphite mixtures in, (E)
- 716 26:47582 (DOCKET-50231--120) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Modification Proposed for Decommissioning Plan. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 28 Jun 1972. 5p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - decommissioning plan for, modifications for
- 717 26:47583 (DOCKET-50231--121) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Request for Issuance of Dismantling Order. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 18 Jul 1972. 2p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - dismantling of, request for order for
- 718 26:47584 (DOCKET-50231--122) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change 13. (Directorate of Licensing (AEC), Washington, D. C.). 21 Jul 1972. 1p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - personnel for, site security

- 719 26:47586 (HEDL-TME--72-42) THREE DIMENSIONAL NEUTRONICS CALCULATIONS FOR THE FAST TEST REACTOR (FTR) AND THE FTR ENGINEERING MOCK UP CRITICAL ASSEMBLY (EMC). Fleischman, R. M.; Nelson, J. V. (Hanford Engineering Development Lab., Richland, Wash.). Apr 1972. Contract AT(45-1)-2170. 68p. Dep. NTIS.

CRITICAL ASSEMBLIES - kinetics of ZPR-9 EMC-BOL, computer program calculation of three dimensional
FAST TEST REACTOR - kinetics of, computer program calculation of three dimensional

- 720 26:47592 EXPERIMENTAL REACTOR MASURCA. Boyer, J.; Bruna, J. (CEN de Cadarache, Saint-Paul-les-Durance, France). Bull. Inform. Sci. Tech. (Paris); No. 168, 57-69(Mar 1972). (In French).

CRITICAL ASSEMBLIES - development of Masurca, history of

- 721 26:47932 (ORNL-TM--3312) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR JANUARY 1971, NO. 23. (Oak Ridge National Lab., Tenn.). Feb 1971. Contract W-7405-eng-26. 112p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
FISSION PRODUCTS - diffusion in oxide fuel elements
IODINE - separation from off-gases from LMFBR fuel reprocessing
IODINE - separation from air, efficiency of various sorbents for
LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (January 1971) for
METHANE, IODO- - separation from air using nitric acid reflux system or solid sorbents
PLUTONIUM - purification in Purex Process
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , oxidation of pellet fragments of
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation from solutions from fuel reprocessing
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PLUTONIUM OXIDES PuO_2 - preparation of dense microspheres of
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on porosity of
PUREX PROCESS - flowsheet development for LMFBR fuels
REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask evaluation for
REACTOR FUEL ELEMENTS - reprocessing of spent oxide, head-end
REACTOR FUEL ELEMENTS - reprocessing of, head-end voloxidation for fission product removal
in
REACTOR FUEL ELEMENTS - performance evaluation of oxide
REACTOR FUELS - reprocessing of LMFBR, research progress (January, 1971) on aqueous
REACTOR FUELS - reprocessing of oxide, removal of iodine from off-gases from
REACTOR FUELS - criticality studies on spent LMFBR
SODIUM - removal from LMFBR fuels
SODIUM - purification of liquid
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URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , oxidation of pellet fragments of
URANIUM OXIDES UO_2 - preparation from solutions from fuel reprocessing
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation from solutions from fuel reprocessing
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation of, sol-gel process for
URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on porosity of

- 722 26:47933 (ORNL-TM--3345) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR FEBRUARY 1971, NO. 24. (Oak Ridge National Lab., Tenn.). Mar 1971. Contract W-7405-eng-26. 72p. Dep. NTIS.

FISSION PRODUCTS - volatilization from oxide fuels
FISSION PRODUCTS - diffusion in oxide fuels
IODINE - separation from off-gases from LMFBR fuel reprocessing
LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (February 1971) for
METHANE, IODO- - separation from air by trapping in nitric acid reflux system
NEUTRONS - effects on stainless steel
PLUTONIUM - purification in Purex Process
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , oxidation of pellets of
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , dissolution in nitric acid
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PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation from LMFBR reprocessing solutions by
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REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask studies for
 REACTOR FUEL ELEMENTS - reprocessing of LMFBR, sodium removal in head-end
 REACTOR FUEL ELEMENTS - reprocessing of oxide, voloxidation for fission product removal in head-end
 REACTOR FUEL ELEMENTS - fabrication requirements of oxide
 REACTOR FUEL ELEMENTS - radiation effects on, tests for evaluation of
 REACTOR FUEL ELEMENTS - performance evaluation of oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (February 1971) on aqueous
 SODIUM - removal from spent LMFBR fuel elements
 STAINLESS STEEL - radiation effects on, neutron
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , oxidation of pellets of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , dissolution in nitric acid
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 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation from LMFBR reprocessing solutions by sol-gel process
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived, neutron

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26:47934 (ORNL-TM--3375) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR MARCH 1971, NO. 25. (Oak Ridge National Lab., Tenn.). Apr 1971. Contract W-7405-eng-26. 86p. Dep. NTIS.

ACTINIDES - distributions in irradiated fuels
 FISSION PRODUCTS - diffusion in oxide fuels
 IODINE - partition between gas and solution
 IODINE - separation from fuel reprocessing off-gases
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (March 1971) on METHANE, IODO- - separation from air by scrubbing with concentrated nitric acid
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , oxidation of
 PLUTONIUM OXIDES PuO_2 - preparation from solutions from fuel reprocessing
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask heat dissipation tests for
 REACTOR FUEL ELEMENTS - reprocessing of spent LMFBR, sodium removal in head-end
 REACTOR FUEL ELEMENTS - performance of LMFBR, predicted and measured
 REACTOR FUELS - reprocessing of LMFBR, research progress (March 1971) on aqueous
 REACTOR FUELS - radiation properties of spent LMFBR
 REACTOR FUELS - shielding of spent LMFBR
 SODIUM - removal from spent LMFBR fuels
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , oxidation of
 URANIUM OXIDES UO_2 - preparation from solutions from fuel reprocessing
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - preparation of microspheres of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - radiation effects on sol-gel-derived

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26:47935 (ORNL-TM--3487) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR JUNE 1971, NO. 28. (Oak Ridge National Lab., Tenn.). Jul 1971. Contract W-7405-eng-26. 59p. Dep. NTIS.

FISSION PRODUCTS - volatilization from spent oxide fuels
 IODINE - separation from fuel reprocessing off-gases
 IODINE - separation from air by trapping using nitric acid or sorption on solids
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (June 1971) for METHANE, IODO- - separation from air by trapping using nitric acid or sorption on solids
 PLUTONIUM - purification in Purex Process
 PLUTONIUM OXIDES PuO_2 - preparation from solutions from fuel reprocessing cycle
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask studies for
 REACTOR FUEL ELEMENTS - reprocessing of clad oxide, sodium removal in head-end
 REACTOR FUEL ELEMENTS - reprocessing of, voloxidation process for fission product removal in head-end
 REACTOR FUEL ELEMENTS - performance of clad oxide
 REACTOR FUEL ELEMENTS - burnup studies on oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (June 1971) on aqueous
 REACTOR FUELS - performance of oxide
 SODIUM - removal from spent LMFBR fuel elements
 URANIUM OXIDES UO_2 - preparation from solutions from fuel reprocessing cycle
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , preparation by sol-gel process
 URANIUM OXIDES UO_2 - preparation of sols of, CUSP process for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on sol-gel-derived

- 725 26:47937 (ORNL-TM--3571) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR AUGUST 1971, NO. 30. (Oak Ridge National Lab., Tenn.). Sep 1971. Contract W-7405-eng-26. 47p. Dep. NTIS.

FISSION PRODUCTS - volatilization from spent oxide fuels
 IODINE - separation from fuel reprocessing off-gases
 IODINE - separation from air by sorption on solids
 IODINE - separation from tritium as tritiated water by sorption on molecular sieves
 IODINE - separation from air by trapping using nitric acid, Iodex Process for
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (August 1971) on
 METHANE, IODO- - separation from air by sorption on solids
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , dissolution in nitric acid
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask studies for
 REACTOR FUEL ELEMENTS - storage of spent LMFBR
 REACTOR FUEL ELEMENTS - reprocessing of oxide, voloxidation process for fission product
 removal in head-end
 REACTOR FUEL ELEMENTS - performance of clad oxide
 REACTOR FUEL ELEMENTS - burnup analysis of oxide
 REACTOR FUEL ELEMENTS - thermal conductance of fuel-to-cladding gap in oxide
 REACTOR FUELS - reprocessing of LMFBR, research progress (August 1971) on aqueous
 REACTOR FUELS - performance of oxide
 TRITIUM - separation as tritiated water from iodine by sorption on molecular sieves
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , dissolution in nitric acid
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on
 WATER - separation from iodine by sorption on molecular sieves

- 726 26:47938 (ORNL-TM--3614) LMFBR FUEL CYCLE STUDIES PROGRESS REPORT FOR SEPTEMBER 1971, NO. 31. (Oak Ridge National Lab., Tenn.). Oct 1971. Contract W-7405-eng-26. 55p. Dep. NTIS.

CERIUM OXIDES - CeO_2 -- UO_2 , dissolution in nitric acid
 FISSION PRODUCTS - volatilization from oxide fuels
 IODINE - separation from fuel reprocessing off-gases by trapping using nitric acid, Iodex
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 IODINE - separation from tritium as tritiated water by sorption on molecular sieves
 IODINE ISOTOPES I-131 - exchange between gaseous iodine and iodine compounds dissolved in
 nitric acid
 LIQUID METAL FAST BREEDER REACTOR - fuel cycle development studies (Sept. 1971) for
 METHANE, IODO- - separation from air by sorption on solids
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on, tests for studies on
 REACTOR FUEL ELEMENTS - shipment of spent LMFBR, cask studies for
 REACTOR FUEL ELEMENTS - reprocessing of, removal of fission products in head-end
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 REACTOR FUELS - reprocessing of LMFBR, research progress (Sept. 1971) on
 REACTOR FUELS - dissolution of oxide, in nitric acid
 REACTOR FUELS - reprocessing of oxide, Iodex process for iodine removal from off-gases
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 SODIUM OXIDES - reactions with uranium dioxide
 THORIUM OXIDES ThO_2 - ThO_2 -- UO_2 , dissolution in nitric acid
 TRITIUM - separation as tritiated water from iodine by sorption on molecular sieves
 URANIUM OXIDES UO_2 - reactions with sodium oxides
 URANIUM OXIDES UO_2 - CeO_2 -- UO_2 , dissolution in nitric acid
 URANIUM OXIDES UO_2 - ThO_2 -- UO_2 , dissolution in nitric acid
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of sol-gel-derived
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on, tests for studies on
 WATER - separation from iodine in off-gases by sorption on molecular sieves

- 727 26:47965 (ANL/EBR--55) SODIUM AEROSOL TRAP DESIGN. EBR-II Project. Barton, Paul
 (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Mar 1972.
 Contract W-31-109-Eng-38. 18p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - coolant cover gas for, design of trap for sodium
 aerosols in
 SODIUM - traps for aerosols of, design of low-pressure-drop
 TRAPS - design of low-pressure-drop sodium aerosol

- 728 26:48317 (HEDL-TME--72-88) FABRICATION MICROSTRUCTURE AND THERMAL CONDUCTIVITY IN
 UO_2 --25 WT. PERCENT PuO_2 SINTERED PELLETS. Gibby, R. L. (Hanford Engineering Development

Lab., Richland, Wash.). May 1972. Contract AT(45-1)-2170. 44p. Dep. NTIS.

FAST TEST REACTOR - fuels for, testing of mixed oxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of dense sintered pellets of, method for
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , thermal conductivity of dense sintered pellets of,
 effects of pore structure on
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of dense sintered pellets of, method for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , thermal conductivity of dense sintered pellets of, effects
 of pore structure on

- 729 26:48321 (LA--4993) ADVANCED PLUTONIUM FUELS PROGRAM. Quarterly Report, January 1--March 31, 1972. Baker, R. D. (comp.) (Los Alamos Scientific Lab., N. Mex.). Jun 1972. Contract W-7405-eng-36. 29p. Dep. NTIS.

BORON - determination in boron carbide, development of methods for
 BORON CARBIDES - analysis for impurities, development of methods for
 CARBON - determination in boron carbide, development of methods for
 EXPERIMENTAL BREEDER REACTOR-II - fuel element irradiation testing in, plans for LMFBR
 HOT CELLS - development for metallographic inspection of LMFBR fuels
 LIQUID METAL FAST BREEDER REACTOR - fuels for, progress on development of
 METALS - determination in boron carbide, development of methods for
 PLUTONIUM - determination in irradiated fuels by controlled potential coulometry
 PLUTONIUM CARBIDES - PuC -- UC , production of LMFBR fuels of, development of equipment and
 methods for
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , thermal properties of irradiated fuels of, methods for
 measuring
 REACTOR FUEL ELEMENTS - inspection of irradiated, methods for
 REACTOR SAFETY EXPERIMENTS - fuel element testing in TREAT, under fast reactor accident
 conditions
 REMOTE-CONTROL EQUIPMENT - development for hot cell inspection of LMFBR fuels
 URANIUM - determination in irradiated fuels by controlled potential coulometry
 URANIUM CARBIDES - PuC -- UC , production of LMFBR fuels of, development of equipment and
 methods for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , thermal properties of irradiated fuels of, methods for
 measuring

- 730 26:48326 (RCN--162) PROGRESS REPORT OF THE MATERIALS DEPARTMENT, THIRD QUARTER 1971. Blackstone, R. (ed.) (Reactor Centrum Nederland, Petten). Dec 1971. 59p. Dep. NTIS (U. S. Sales Only).

ALUMINUM - radiation effects on tensile properties of, neutron
 NEUTRONS - effects on tensile properties of aluminum
 REACTOR FUEL ELEMENTS - fabrication of Zircaloy-clad uranium dioxide, for boiling reactors
 REACTOR FUEL ELEMENTS - cladding failure experiments for sodium-cooled reactor
 REACTOR FUELS - thermal gradient effects on carbon coated particulate, amoeba-type
 REACTORS, FAST - fuels for sodium-cooled, development and testing of
 REACTORS, GAS-COOLED; REACTORS, WATER-COOLED - fuels for, development and testing of
 STAINLESS STEEL - radiation effects on brittleness of boron-doped Types 304 and 316,
 relations of transmutation helium content with fast neutron
 URANIUM OXIDES UO_2 - radiation effects on Zircaloy-clad fuels of, in-pile
 ZIRCALLOY-2 - corrosion by water in pressurized loops, weight gain measurements on
 ZIRCALLOY-2; ZIRCALLOY-3; ZIRCALLOY-4 - radiation effects on corrosion by loop water, in-pile

- 731 26:48357 (HEDL-TME--72-71) ACTIVATED CORROSION PRODUCT RADIATION LEVELS NEAR FFTF REACTOR AND CLOSED LOOP PRIMARY SYSTEM COMPONENTS. Kabele, T. J.; Brehm, W. F.; Marr, D. R. (Hanford Engineering Development Lab., Richland, Wash.). 15 May 1972. Contract AT(45-1)-2170. 48p. Dep. NTIS.

CHROMIUM ISOTOPES Cr-51; COBALT ISOTOPES Co-58; COBALT ISOTOPES Co-60 - radiation dose
 from FFTF cooling system activated corrosion product, estimation of
 FAST FLUX TEST FACILITY - cooling system for, activated corrosion product-induced
 radiation levels in
 IRON ISOTOPES Fe-59; MANGANESE ISOTOPES Mn-54; TANTALUM ISOTOPES Ta-182 - radiation dose
 from FFTF cooling system activated corrosion product, estimation of

- 732 26:48374 (RDT-M--3-28-T(5-72)) AUSTENITIC STAINLESS STEEL TUBING FOR LMFBR CORE COMPONENTS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). May 1972. 25p. RSO.

LIQUID METAL FAST BREEDER REACTOR - core tubing for, standard for stainless steel

STAINLESS STEEL - standard for LMFBR core tubing of
STANDARDS - austenitic stainless steel tubing for LMFBR core components

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26:48447 (HEDL-TME--72-27) IRRADIATION EFFECTS ON REACTOR STRUCTURAL MATERIALS.
Quarterly Progress Report, November 1971--January 1972. Claudson, T. T. (comp.) (Hanford Engineering Development Lab., Richland, Wash.). Mar 1972. Contract AT(45-1)-2170. 292p. Dep. NTIS.

ALUMINUM ALLOYS AND SYSTEMS - radiation effects on void distribution in, relations of solute atoms with 4-MeV nickel ion
DEUTERONS - effects on creep of Type 304 stainless steel
EXPERIMENTAL BREEDER REACTOR-II - radiation test facilities for, determination of temperatures in
FAST FLUX TEST FACILITY; FAST TEST REACTOR - materials for, development and testing of
HELIUM IONS - effects of injected, on microstructure and properties of Type 304 stainless steel
INCONEL 600 - radiation effects on swelling of, fast neutron
IRON - radiation effects on microstructure of, fast neutron
IRON ALLOYS AND SYSTEMS - radiation effects on microstructure of dilute, fast neutron
LIQUID METAL FAST BREEDER REACTOR - materials for, development and testing of
MOLYBDENUM - radiation effects on void distribution in, 5- to 7-MeV nickel and tantalum ion
NEUTRONS, FAST - effects on swelling of tantalum
NEUTRONS, FAST - effects on swelling of Inconel 600
NEUTRONS, FAST - effects on microstructure of iron and iron alloys
NICKEL IONS - effects on microstructure of Type 316 stainless steel at 4 MeV
NICKEL IONS - effects on void distribution in aluminum-base alloys
NICKEL IONS - effects on void distribution in refractory metals at 5 MeV
NIOBIUM - radiation effects on void distribution in, 5- to 7-MeV nickel and tantalum ion
PROTONS - effects on void distribution in Type 216 stainless steel
REACTOR FUEL ELEMENTS - cladding failure on mixed oxide, relations with fuel-clad chemical reactions
REACTOR FUEL ELEMENTS - radiation effects on pin-type PNL-17, in-pile
SILICON CARBIDES - radiation effects on properties of temperature monitors of, annealing of in-pile
SODIUM - effects on properties of stainless steel at 1300°F
STAINLESS STEEL - radiation effects on creep and fatigue of Types 304 and 316, fast neutron
STAINLESS STEEL - creep-fatigue behavior at high temperatures, cyclic testing of
STAINLESS STEEL - reactions of cladding of Type 304, with mixed oxide fuels
STAINLESS STEEL - radiation effects on microstructure of Type 316, 4-MeV nickel ion
STAINLESS STEEL - radioinduced swelling of Type 304, relations of stress with fast neutron
STAINLESS STEEL - radiation effects on creep of Type 304, deuteron
STAINLESS STEEL - radiation effects on tubes of Type 304L, in-pile
STAINLESS STEEL - radiation effects on void distribution in Type 316, proton
STAINLESS STEEL - radiation effects on swelling of Types 304, 316, 321, and 405
STAINLESS STEEL - tensile properties of Type 316, effects of carbon and helium contents on
STAINLESS STEEL - radiation effects on encapsulated specimens of Types 304, 316, 321, and 347, in-pile
STAINLESS STEEL - properties of Types 316, 321, and 347, effects of flowing sodium at 1300°F on
STAINLESS STEEL - chemical composition of Type 321H
STAINLESS STEEL - mechanical properties of Type 316, effects of cold working on
STAINLESS STEEL - radiation effects on tensile properties of welds of Type 304 and 316, in-pile
STAINLESS STEEL - radiation effects on swelling of, computer analysis of neutron
STAINLESS STEEL - radiation effects on creep and ductility of Type 316, in-pile
STAINLESS STEEL - radiation effects on weldments of austenitic, in-pile
STAINLESS STEEL - radiation effects on properties and structure of, damage models for fast neutron
STAINLESS STEEL - radiation effects on fatigue of Type 348, in-pile
STAINLESS STEEL - radiation effects on microstructure of Type 304, implanted helium ion
STAINLESS STEEL - microstructure of Types 304 and 316, relation of mechanical properties to
STEEL - mechanical properties of thick-section Type A533B
TANTALUM - radiation effects on swelling of, fast neutron
TANTALUM - radiation effects on void distribution in, 5- to 7-MeV nickel and tantalum ion
TANTALUM IONS - effects on void distribution in refractory metals at 7.5 MeV
VANADIUM - radioinduced void formation in, mechanisms of laser
VANADIUM - radiation effects on void distribution in, 5- to 7-MeV nickel and tantalum ion

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26:48483 (COO--3019-1) SEMIANNUAL PROGRESS REPORT, SEPTEMBER 1, 1971--FEBRUARY 29, 1972.
First, M. W.; Underhill, D. W.; Hall, R. R.; Baldwin, T. W.; Moeller, D. W. (Harvard Univ., Boston, Mass. Harvard Air Cleaning Lab.). Apr 1972. 34p. Dep. NTIS.

BLOWERS - sodium aerosol deposition on surfaces of centrifugal recirculating, equipment and method for measuring
 FAST FLUX TEST FACILITY - fission gas adsorption system for, evaluation of pressurized
 HEAT EXCHANGERS - sodium aerosol deposition on surfaces of, equipment and method for measuring
 KRYPTON ISOTOPES Kr-85 - sorption of fission gases of, from FFTF, evaluation of pressurized bed for
 SODIUM - deposition of aerosols of, on surfaces of centrifugal blowers and heat exchangers, equipment and method for measuring
 XENON ISOTOPES Xe-133 - sorption of fission gases of, from FFTF, evaluation of pressurized bed for

- 735   26:49791 (BMBW-FBK--72-3) DEVELOPMENT OF A 300 MWe PROTOTYPE NUCLEAR POWER STATION WITH SODIUM COOLED FAST REACTOR SNR. Final Report, Interim Program. Slopianka, G. (Internationale Atomreaktorbau G.m.b.H., Bensberg (West Germany)). Mar 1972. 243p. (In German). Dep. NTIS (U. S. Sales Only).
- SODIUM - test facilities for liquid, progress on AKB and APB/RSB
 SNR REACTOR - development of 300 MW(e) prototype, status of
- 736   26:49795 (AI-AEC--13025) LMFBR PHYSICS PROGRAMS. Quarterly Technical Progress Report, January--March 1972. (Atomics International, Canoga Park, Calif.). 25 May 1972. Contract AT(04-3)-824. 33p. Dep. NTIS.
- COPPER ISOTOPES Cu-63 - neutron cross sections for, evaluation of ENDF/B data for, (E/T)
 CRITICAL ASSEMBLIES - core for ECEL, mockup of sodium cooled fast
 LIQUID METAL FAST BREEDER REACTOR - physics measurement programs during January to March 1972
 NEUTRON CROSS SECTIONS - calculations for fast reactors, evaluation of ENDF/B data for, (E/T)
 NEUTRONS, DELAYED - yields from fission of fast reactor fuels, review and evaluation of REACTOR CONTROL ELEMENTS - fabrication of mockup sodium-filled fast
 REACTORS, FAST - physics analysis of, development of IMPS and VIM codes for
 REACTORS, FAST - cores for, gamma heating rates in mockup, (E/T)
 TUNGSTEN - neutron cross sections for, evaluation of ENDF/B data for, (E/T)
- 737   26:49797 (EURFNR--931) GAS BREEDER MEMORANDUM: RESULTS OF A STUDY ON THE FEASIBILITY AND PROFITABILITY OF A GAS-COOLED FAST BREEDER. (Kernforschungszentrum, Karlsruhe (West Germany)). Translation of report KFK--1375. 533p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.
- LIQUID METAL FAST BREEDER REACTOR - alternatives to, feasibility of gas cooled breeder reactors as
 REACTORS, BREEDER - development of gas cooled, economics and feasibility of
 REACTORS, GAS-COOLED - development of breeder, economics and feasibility of
- 738   26:49799 STRUCTURAL MATERIALS ASPECTS OF LMFBR CORE RESTRAINT SYSTEM DESIGN. Pennell, W. E. (Westinghouse Electric Corp., Madison, Pa.). Nucl. Technol.; 16: No. 1, 332-44(Oct 1972).
- LIQUID METAL FAST BREEDER REACTOR - core restraint system design for, effects of irradiation induced swelling, creep, and ductility loss on, (E/T)
- 739   26:49808 (HEDL-TME--71-129) FFTF/LMFBR METHODS FOR SODIUM LEAK DETECTION, FIRE PREVENTION, AND FIRE CONTROL. (Hanford Engineering Development Lab., Richland, Wash.). Aug 1971. Contract AT(45-1)-2170. 64p. Dep. NTIS.
- FAST FLUX TEST FACILITY; LIQUID METAL FAST BREEDER REACTOR - cooling systems of, leak detection and fire prevention and control of sodium
 SODIUM - leak detection methods for
 SODIUM - fire prevention and control methods for
- 740   26:49810 (RDT-C--12-1-T(5-72)) GAS CHROMATOGRAPH SYSTEM FOR SODIUM COVER GAS SERVICE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). May 1972. 16p. RSO.

GAS CHROMATOGRAPHY - standards for liquid sodium cover gas sampling system
 REACTORS, LIQUID METAL-COOLED - coolant cover gas sampling system for, standards for gas chromatography for liquid sodium
 STANDARDS - gas chromatography for liquid sodium cover gas sampling system

- 741 26:49811 (ANL--7787) EFFECTS OF DRIVER-FUEL CLADDING DEFECTS ON THE OPERATION OF EBR-II. EBR-II Project. Smith, R. R.; Fryer, R. M.; Ebersole, E. R.; Loewenstein, W. B.; Strain, R. V. (Argonne National Lab., Ill.). Feb 1972. Contract W-31-109-eng-38. 98p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, effects of cladding defects on fission product release from driver, (E/T)

- 742 26:49812 (ANL--7879) CHEMICAL ENGINEERING DIVISION: BURNUP, CROSS SECTIONS, AND DOSIMETRY SEMIANNUAL REPORT, JULY--DECEMBER 1971. Larsen, R. P.; Dudey, N. D.; Crouthamel, C. E.; Tevebaugh, A. D.; Vogel, R. C. (Argonne National Lab., Ill.). May 1972. Contract W-31-109-eng-38. 43p. Dep. NTIS.

BARIUM ISOTOPES Ba-140 - yield from uranium-235, uranium-238, plutonium-239, and neptunium-237 fast fissions
 EXPERIMENTAL BREEDER REACTOR-II - fission products in, uranium-235, uranium-238, neptunium-237, and plutonium-239 fast fission yields of γ active
 GAMMA RADIATION - measurement of, error analysis for lithium drifted germanium detector
 IODINE ISOTOPES I-131 - yield from uranium-235, uranium-238, and plutonium-239 fast fissions
 LIQUID METAL FAST BREEDER REACTOR - tritium production in, methods for measurement of
 LIQUID METAL FAST BREEDER REACTOR - fission rates in, dosimetry methods for measurement of
 MOLYBDENUM ISOTOPES Mo-99 - yield from uranium-235, uranium-238, and plutonium-239 fast fissions
 NEPTUNIUM ISOTOPES Np-237; PLUTONIUM ISOTOPES Pu-239 - fission yield of γ active fission products from, measurement of fast
 RADIATION DETECTORS, SEMICONDUCTOR (GERMANIUM) - performance of lithium drifted, for γ radiation measurements
 RADIATION DOSIMETRY - methods for measurement of liquid metal cooled fast breeder reactor fission rates
 RUTHENIUM ISOTOPES Ru-103; TELLURIUM ISOTOPES Te-132 - yield from uranium-235, uranium-238, and plutonium-239 fast fissions
 TRITIUM - production in liquid metal cooled fast breeder reactors, methods for measurement of
 URANIUM ISOTOPES U-235; URANIUM ISOTOPES U-238 - fission yield of γ active fission products from, measurement of fast
 ZIRCONIUM ISOTOPES Zr-95; ZIRCONIUM ISOTOPES Zr-97 - yield from uranium-235, uranium-238, and plutonium-239 fast fissions

- 743 26:49813 (CONF-720607--6) PREDICTION OF LMFBR FUEL ROD START-UP BEHAVIOR. Harbourn, B. L.; Foster, J. P.; Blancheria, A. [(Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.)]. [9 Feb 1972]. Contract AT(11-1)-3045. 4p. Dep. NTIS. From 18. annual American Nuclear Society conference; Las Vegas, NV. (18 Jun 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel elements in, prediction of startup performance of
 REACTOR FUEL ELEMENTS - performance of fast breeder, prediction of startup

- 744 26:49818 (ORNL-TM--3693) ELECTRONIC CIRCUIT FOR THE PROTECTION OF CARTRIDGE HEATERS SIMULATING FAST REACTOR FUEL PINS. Stulting, R. D. (Oak Ridge National Lab., Tenn.). Jul 1972. Contract W-7405-eng-26. 19p. Dep. NTIS.

CIRCUITS - development of electronic, for protection of cartridge heaters in Fuel Failure Mockup
 HEATERS - protection of Fuel Failure Mockup, electronic circuit for
 LIQUID METAL FAST BREEDER REACTOR - fuel pins for, protection of heaters in Fuel Failure Mockup testing of
 REACTOR FUEL ELEMENTS - mockup of fast, circuit for protection of heaters for

- 745 26:49820 EXAMINATION OF F3A SERIES UNENCAPSULATED MIXED-OXIDE FUEL PINS IRRADIATED IN EBR-II. McCarthy, W. H. (General Electric Co., San Jose, Calif.); Perry, K. J.; Hull, G. R.; Bennett, J. W. Nucl. Technol.; 16: No. 1, 171-86 (Oct 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, post-irradiation examination of

stainless steel clad mixed oxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects testing of stainless steel clad fuels of
 REACTOR FUEL ELEMENTS - radiation effects testing of stainless steel clad mixed oxide, post-irradiation examination following
 STAINLESS STEEL - radiation effects on corrosion and swelling of plutonium oxide(PuO_2)--uranium oxide(UO_2) fuel cladding of, (E)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects testing of stainless steel clad fuels of

- 746 26:49821 FUEL-CLADDING MECHANICAL INTERACTION IN LMFBR FUEL RODS. Rubin, B. F.; Black, T. J.; Appleby, W. K.; Stephen, J. D.; Hilbert, R. F. (General Electric Co., San Jose, Calif.). Nucl. Technol.; 16: No. 1, 89-142(Oct 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, fuel-cladding mechanical interaction in irradiated, (E)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , swelling of fuel elements of, effects of burnup ratio on interactions with cladding from
 REACTOR FUEL ELEMENTS - cladding for irradiated mixed oxide, maximum plastic deformation of stainless steel, (E)
 STAINLESS STEEL - radiation effects on swelling of fuel element cladding of Type-316, fast neutron
 STAINLESS STEEL - plastic strain in irradiated, effects of fuel element burnup on
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , swelling of fuel elements of, effects of burnup ratio on interactions with cladding from

- 747 26:49822 PERFORMANCE OF MIXED-OXIDE FUEL ELEMENTS TO 11 AT. PERCENT BURNUP. Neimark, L. A.; Lambert, J. D. B.; Murphy, W. F.; Renfro, C. W. (Argonne National Lab., Ill.). Nucl. Technol.; 16: No. 1, 75-88(Oct 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, radiation effects testing of stainless steel clad mixed oxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on stainless steel Type-316L clad fuel elements of, fast neutron
 REACTOR FUEL ELEMENTS - radiation effects testing of stainless steel clad mixed oxide, to 11 percent burnup
 STAINLESS STEEL - radiation effects in fuel element cladding of Type-316L, fast neutron
 STAINLESS STEEL - corrosion of fuel element cladding of Type-316L, effects of fission products on
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on stainless steel Type-316L clad fuel elements of, fast neutron

- 748 26:49823 DEVELOPMENT OF CYGRO-F FOR FUEL ROD BEHAVIOR ANALYSIS. Harbourne, B. L.; Beck, M. S.; Foster, J. P.; Biancheria, A. (Westinghouse Electric Corp., Madison, Pa.). Nucl. Technol.; 16: No. 1, 156-70(Oct 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel element performance in, CYGRO-F code system for analysis of
 REACTOR FUEL ELEMENTS - performance of fast breeder, CYGRO-F code system for analysis of

- 749 26:49828 (AI-AEC--13026) LMFBR SAFETY PROGRAMS. Quarterly Technical Progress Report, January--March 1972. (Atomics International, Canoga Park, Calif.). 31 May 1972. Contract AT(04-3)-824. 29p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - safety programs during January to March 1972
 LIQUID METAL FAST BREEDER REACTOR - coolant pipe rupture in, characteristics of sodium jet discharge from, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - coolant combustion accidents in, energy release from sodium, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - fuel vaporization accidents in, aerosol characteristics for uranium oxide (UO_2), (E)
 SODIUM - combustion in liquid metal cooled reactor accidents, energy release from, (E/T)
 SODIUM - flow characteristics during liquid metal cooled reactor coolant pipe rupture accidents, (E/T)
 URANIUM OXIDES UO_2 - vaporization in sodium cooled reactor accidents, aerosol characteristics from, (E)

- 750 26:49829 (ANCR--1050) EXPERIMENT DESCRIPTION AND HAZARDS EVALUATION FOR THE IRRADIATION OF FBR PHYSICS CONSTANTS SAMPLES IN THE EBR-II. Nisic, Robert G. (Aerojet Nuclear Co.,

Idaho Falls, Idaho). May 1972. Contract AT(10-1)-1375. 29p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel sample irradiation in, experiment description and hazards evaluation for

- 751 26:49830 (ANL--7909) TRANSIENT-BOILING HEAT TRANSFER FROM SPHERES TO SODIUM. Farahat, Mohamed M. K. (Argonne National Lab., Ill.). Jan 1972. Contract W-31-109-eng-38. 109p. Dep. NTIS. Thesis. Submitted to Northwestern Univ., Evanston, Ill.

REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element failure in sodium cooled, heat transfer from fuel particles to sodium following, (E/T)
SODIUM - heat transfer from spheres to liquid, mechanism of transient boiling, (E/T)

- 752 26:49835 (HEDL-TME--71-94) MECHANICAL WORK ENERGY FOR SODIUM--FUEL THERMAL INTERACTION. Padilla, A. Jr. (Hanford Engineering Development Lab., Richland, Wash.). Jun 1971. Contract AT(45-1)-2170. 125p. Dep. NTIS.

COMPUTER PROGRAMS - SOCOOL, for mechanical work energy sodium vapor explosions in fast reactor accidents
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core meltdown accidents in sodium cooled, mechanical work energy from thermal interaction of sodium and fuel following, (T)

- 753 26:49837 (NP--19349) LIQUID SODIUM--REACTOR FUEL INTERACTION. Ashbaugh III, Charles Edward (California Univ., Los Angeles). 1972. 76p. Thesis.

REACTOR FUEL ELEMENTS - failure of sodium cooled fast, interaction of molten fuel and coolant following, (E/T)
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element failures in sodium cooled, interaction of molten fuel and coolant following, (E/T)

- 754 26:49838 (ORNL-TM--3738) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR JANUARY--FEBRUARY 1972. Cottrell, Wm. B. (Oak Ridge National Lab., Tenn.). May 1972. Contract W-7405-eng-26. 150p. Dep. NTIS.

FISSION PRODUCTS - release from gas cooled coated particle fuels, effects of postirradiation annealing on, (E)
FISSION PRODUCTS - distribution in cooling system of HTGR type reactors, (E)
GRAPHITE - corrosion of H327, by high temperature steam, (E)
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LIQUID METAL FAST BREEDER REACTOR - fuel element cladding for, failure of Type 316 stainless steel, (E)
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PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)
REACTOR FUEL ELEMENTS - failure of liquid sodium cooled bundle arranged rods, test equipment and measurements for mockup, (E/T)
REACTOR FUEL ELEMENTS - cladding for liquid sodium cooled, failure of Type 316 stainless steel, (E)
REACTOR FUEL ELEMENTS - heat transfer characteristics of water cooled, during coolant loss accident conditions, (E)
REACTOR FUEL ELEMENTS - cladding for water cooled, effects of coolant loss accident on embrittlement of zircaloy
REACTOR FUEL ELEMENTS - fission product release from gas cooled coated particle, (E)
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REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly heat transfer characteristics during, (E)

REACTORS, PRESSURIZED-WATER - emergency core cooling system for, hybrid computer simulation of
 REACTORS, PRESSURIZED-WATER - fuel element cladding for, effects of coolant loss accident on embrittlement of zircaloy
 REACTORS, WATER-COOLED - pressure vessels for, effects of flaw growth and propagation on fracture of heavy section steel, (E)
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 STAINLESS STEEL - stress to failure of Type 316, fuel rod cladding, (E)
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 STEAM - corrosive effects on H327 graphite, (E)
 VALVES - design criteria for nuclear service, development program for
 ZIRCALOY - embrittlement of water cooled fuel rod cladding, effects of coolant loss accident on

- 755 26:49845 (ANL--7874) MAGNETOMETER FLOWSENSOR. Wiegand, D. E. (Argonne National Lab., Ill.). Mar 1972. Contract W-31-109-eng-38. 84p. Dep. NTIS.

COMPUTER PROGRAMS - MAGFLOM, for performance of magnetometer flowmeters, FORTRAN-4
 COMPUTER PROGRAMS - INTCHAN, for performance of magnetometer flowmeters, FORTRAN-4
 COMPUTER PROGRAMS - MOMES, for performance of magnetometer flowmeters, FORTRAN-4
 COMPUTER PROGRAMS - GRAFLOM, for performance of magnetometer flowmeter, FORTRAN-4
 COMPUTER PROGRAMS - DNEMAG, for performance of magnetometer flowmeters, FORTRAN-4
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 MAGNETOMETERS - design for liquid metal flowmeters
 METALS - flowmeters for liquid, design of magnetometer flowsensor
 REACTORS, LIQUID METAL-COOLED - flowmeters for, design of magnetometer flowsensor

- 756 26:49855 (DOCKET-50016--166) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Results of the Examination of Subassembly L-174F. (Power Reactor Development Co., Detroit, Mich.). 14 Aug 1972. 26p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - fuel element assembly for, post-irradiation destructive examination of L-174F

- 757 26:49961 (AI-68-Memo--53) STUDIES OF THE DISTRIBUTION OF MASS RELEASED INTO THE FFTF HOT CELL AFTER THE DBA. Interim Report. Koontz, R. L.; Greenfield, M. A.; Hausknecht, D. F.; Silberberg, M. (Atomics International, Canoga Park, Calif.). 22 May 1968. 78p. Dep. NTIS.

FAST FLUX TEST FACILITY - hot cell for, design basis accident release of mass to, (E/T)
 FAST TEST REACTOR - core meltdown accidents in, distribution of aerosols in containment following, (E/T)

- 758 26:49963 (ANL--7940) OXYGEN--HYDROGEN METER MODULE FOR LMFBR's: DESIGN AND OPERATION. Kolba, V. M.; Slawewski, M. A.; Filewicz, E. C.; Vissers, D. R.; Raue, D. J.; Holmes, J. T.; Nelson, P. A. (Argonne National Lab., Ill.). May 1972. Contract W-31-109-eng-38. 20p. Dep. NTIS.

FAST TEST REACTOR - coolant loops for, oxygen and hydrogen meter module for on-line monitoring of
 HYDROGEN; OXYGEN - monitoring in liquid sodium loops, meter for on-line
 SODIUM - analysis for hydrogen and oxygen, meter for on-line

- 759 26:49964 (ANL--7941) CARBON METER-EQUILIBRATION MODULE FOR LMFBR's: DESIGN AND OPERATION. Kolba, V. M.; Slawewski, M. A.; Filewicz, E. C.; McKee, J. M.; Holmes, J. T.; Nelson, P. A. (Argonne National Lab., Ill.). May 1972. Contract W-31-109-eng-38. 19p. Dep. NTIS.

CARBON - monitoring in liquid sodium loops, meter for on-line
 FAST TEST REACTOR - coolant loops for, carbon meter equilibration module for on-line monitoring of
 SODIUM - analysis for carbon, meter for on-line

- 760 26:49970 (GEAP--10010-31) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR DEVELOPMENT PROGRAM. Thirty-First and Final Quarterly Report, November 1971--January 1972. Pflasterer, G. R.; Becker, R. A. (comps.) (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.).

Feb 1972. Contract AT(04-3)-540. 156p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements for, fabrication and design parameters of plutonium oxide (PuO_2)--uranium oxide (UO_2)
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - physics measurements during calibration of FRED rod, super-prompt transient
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - reflector in, measurement of reactivity worth of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - safety evaluation of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - protective devices for, modification of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - shutdown of, procedures for
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operation of, summary of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - maintenance of, summary of

- 761 26:49971 (GEAP--10548) SEFOR COLD-TRAP EXPERIENCE. Gadeken, A. D.; Plummer, M. C. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Apr 1972. Contract AT(04-3)-540. 38p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - cooling system for, effects of operating procedures on performance of cold traps for
 TRAPS - performance of liquid sodium cold, effects of research reactor operating procedures on

- 762 26:49972 (GEAP--13771-2) CRITICAL EXPERIMENTS AND COOPERATIVE EVALUATIONS PROGRAM. Second Quarterly Report, January--March 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Apr 1972. Contract AT(04-3)-189. 60p. Dep. NTIS.

CRITICAL ASSEMBLIES - core for ZPPR, loading plan for Assembly 3
 CRITICAL ASSEMBLIES - control rods for ZPPR Assembly 3, worth measurements on
 CRITICAL ASSEMBLIES - criticality measurements in ZPPR Assembly 3
 CRITICAL ASSEMBLIES - physics calculations for ZPPR Assembly 3, nuclear data and methods development for

- 763 26:49973 (HEDL-TME--71-25) FFTF OUTLET REGION FEATURE MODEL: 300 SERIES AIR ENTRAINMENT TESTS REPORT. Spalek, J.; Ballard, D. L.; Sweetin, L. R. (Hanford Engineering Development Lab., Richland, Wash.). Feb 1971. Contract AT(45-1)-2170. 40p. Dep. NTIS.

FAST TEST REACTOR - coolant pool surface of, potential for air entrainment by, (E)

- 764 26:49974 (HEDL-TME--71-27) FTR FISSION PRODUCT DECAY HEAT. Marr, D. R.; Bunch, W. L. (Hanford Engineering Development Lab., Richland, Wash.). Feb 1971. Contract AT(45-1)-2170. 67p. Dep. NTIS.

FAST TEST REACTOR - fuel elements for, fission product decay heat curves for driver, (T)

- 765 26:49975 (HEDL-TME--71-48) FFTF OUTLET REGION FEATURE MODEL LOCALIZED POOL VELOCITIES. Polentz, L. M.; Ballard, D. L.; Nunamaker, F. H. (Hanford Engineering Development Lab., Richland, Wash.). Dec 1971. Contract AT(45-1)-2170. 60p. Dep. NTIS.

FAST TEST REACTOR - coolant flow characteristics for, analysis of liquid sodium
 SODIUM - flow characteristics of liquid, in research reactor pressure vessel

- 766 26:49976 (HEDL-TME--71-120(Rev.1)) CONTEXTUAL INDEX FOR FFTF PSAR. Supplementary Documentation. (Hanford Engineering Development Lab., Richland, Wash.). Aug 1971. Contract AT(45-1)-2170. 21p. Dep. NTIS.

FAST TEST REACTOR - safety analysis for, index of supplements to preliminary
 INDEXES - safety analysis for Fast Test Reactor, supplements to preliminary

- 767 26:49977 (HEDL-TME--72-39) CCTL MARK II FUEL ASSEMBLY INTERIM EXAMINATION AND MODIFICATION. Myers, R. L. (Hanford Engineering Development Lab., Richland, Wash.). May 1972. Contract AT(45-1)-2170. 40p. Dep. NTIS.

FAST TEST REACTOR - fuel assembly for, inspection and modification of prototype driver

- 768 26:49978 (HEDL-TME--72-78) SEFOR-CORE I DOPPLER CONSTANT ANALYSIS. Harris, R. A.; Nelson, J. V. (Hanford Engineering Development Lab., Richland, Wash.). Apr 1972. Contract AT(45-1)-2170. 55p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - Doppler coefficient for, calculation of Core 1
- 769 26:49984 (ORNL-TM--3715) SUBCRITICALITY MEASUREMENTS IN FTR-3: THE HOMOGENEOUS MOCKUP OF THE FAST TEST REACTOR. Kryter, R. C.; Ackermann, N. J. Jr.; Buhl, A. R. (Oak Ridge National Lab., Tenn.). 29 Feb 1972. Contract W-7405-eng-26. 119p. Dep. NTIS.
- CRITICAL ASSEMBLIES - exponential measurements in ZPR-9 mockup FTR-3, methods and instrumentation for
- 770 26:49985 (ORNL-TM--3800) FAST REACTOR SHIELDING. Activity No. 40 01 61, 189a No. 10028. Monthly Progress Report, March 1972. Mynatt, F. R.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). 15 May 1972. Contract W-7405-eng-26. 56p. Dep. NTIS.
- FAST FLUX TEST FACILITY; REACTORS, FAST - shielding for, development of
SODIUM - shielding properties of, measurement of
STAINLESS STEEL - shielding properties of Type-304, measurement of
- 771 26:49998 PERFORMANCE MODELING OF NEUTRON ABSORBERS. Homan, F. J. (Oak Ridge National Lab., Tenn.). Nucl. Technol.; 16: No. 1, 216-25(Oct 1972).
- BORON CARBIDES - radiation effects on control rod absorber materials of, ABSORB code modeling of, (T)
FAST TEST REACTOR - control element performance in, ABSORB code modeling of boron carbide, (T)
REACTOR CONTROL ELEMENTS - performance of fast, ABSORB code for modeling of, (T)
REACTORS, FAST - control element performance in, ABSORB code modeling of boron carbide, (T)
- 772 26:50439 (ORNL--4801, pp 51-86) AQUEOUS STUDIES. (Oak Ridge National Lab., Tenn.). Jul 1972. In Reactor Chemistry Division annual progress report, 1972.
- AMMONIUM HYDROXIDES - dissociation in potassium chloride media to 300°C, pp. 54-55
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 ZIRCONIUM OXIDES - spectra of surface species on ZrO_2 , ir, p. 73

- 773 26:50641 (HEDL-TME--72-47) PERFORMANCE TESTING OF COMMERCIAL EQUIPMENT FOR IN-VESSEL NEUTRON MONITORING IN FAST REACTORS. Hoitink, N. C.; Jackson, C. N.; Thompson, D. C.; Spear, W. G. (Hanford Engineering Development Lab., Richland, Wash.). [nd]. Contract AT(45-1)-2170. 71p. Dep. NTIS.

FAST TEST REACTOR - neutron monitoring in, performance testing of commercial equipment for in-vessel
 NEUTRONS - monitoring in fast reactors, performance testing of commercial equipment for in-vessel
 RADIATION DETECTORS, FISSION CHAMBER - performance testing of commercial, for in-vessel neutron monitoring in fast reactors

- 774 26:50731 (ORNL--4734) INSTRUMENTATION AND CONTROLS DIVISION. Annual Progress Report for the Period Ending September 1, 1971. Sadowski, G. S. (comp. and ed.) (Oak Ridge National Lab., Tenn.). Jul 1972. Contract W-7405-eng-26. 161p. Dep. NTIS.

COMPUTERS - interfaces for, development at ORNL, 9/70--9/71
 CONTROL SYSTEMS - development of automatic, at ORNL, 9/70--9/71
 DATA ACQUISITION SYSTEMS; DATA PROCESSING SYSTEMS; ELECTRONIC EQUIPMENT - development at ORNL, 9/70--9/71
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 INSTRUMENTS - development at ORNL, 9/70--9/71
 LINEAR ACCELERATORS - control systems and instruments for ORELA, development of, 9/70--9/71
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 PROCESS EQUIPMENT; PULSE ANALYZERS; RADIATION DETECTORS - development at ORNL, 9/70--9/71
 RADIATION MONITORING - instrumentation for, development at ORNL, 9/70--9/71
 REACTOR CONTROL SYSTEMS - development at ORNL, 9/70--9/71
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 THERMOCOUPLES - development at ORNL, 9/70--9/71
 VAN DE GRAAFF ACCELERATORS - instrumentation for, development at ORNL, 9/70--9/71

- 775 26:51020 (WHAN-IR--44) DETERMINATION OF FUEL PELLET HOMOGENEITY BY ALPHA-AUTORADIOGRAPHY AND DETERMINATION OF POROSITY, GRAIN STRUCTURE AND SECONDARY PHASE BY CERAMOGRAPHY. Robinson, J. D.; Stranik, D. A.; Stallwood, T. E. (WADCO Corp., Richland, Wash.). Nov 1970. Contract AT(45-1)-2170. 22p. Dep. NTIS.

FAST TEST REACTOR - fuel pellets for, α autoradiography for determining homogeneity of plutonium dioxide--uranium dioxide
 FAST TEST REACTOR - fuel pellets for, ceramography for determining grain structure, porosity, and secondary phase of plutonium dioxide--uranium dioxide
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , homogeneity of FFTF fuel pellets of, α autoradiography studies on
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , grain structure, porosity, and secondary phase of, ceramography studies on
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , homogeneity of FFTF fuel pellets of, α autoradiography studies on
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , grain structure, porosity, and secondary phase of, ceramography studies on

- 776 26:51959 (ORNL--4800) NEUTRON PHYSICS DIVISION. Annual Progress Report for the Period Ending May 31, 1972. (Oak Ridge National Lab., Tenn.). Aug 1972. Contract W-7405-eng-26. 98p. Dep. NTIS.
- CARBON ISOTOPES C-12 - proton reactions (p,xp) at 61.9 MeV, differential cross sections for, (E)
 FAST TEST REACTOR - cooling system for, neutron streaming in ducts of
 INFORMATION CENTERS - activities of Radiation Shielding Information Center
 MESONS (π^-) - radiation dose in tissues
 MESONS (π^-) - energy deposition in shower-type and total absorption scintillation detectors
 NEUTRON CROSS SECTIONS - data files on thermal capture, comparison of published data and ENDF/B III
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 RADIATION DETECTORS, SCINTILLATION (SOLID) - meson (π^-) energy deposition in total absorption NAI(Tl)
 RADIATION DETECTORS, SHOWER - meson (π^-) energy deposition in scintillation
 RADIATION DOSIMETERS, THERMOLUMINESCENT - response function for albedo neutrons
 TISSUES - radiation dose to, intermediate energy π -meson
 URANIUM ISOTOPES U-235 - neutron fission of, pulse height spectra from, (E)
- 777 26:52319 (WARD--3045-T-2-C-2) VALIDATION OF HIGH TEMPERATURE DESIGN METHODS AND CRITERIA. Quarterly Progress Report for Period Ending May 31, 1972. Bishop, E. C. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Aug 1972. Contract AT(11-1)-3045. 61p. Dep. NTIS.
- FAST TEST REACTOR - cooling system for, structural testing of pipes and pipe fittings for, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - core structures for, high temperature design criteria for, (E/T)
 LIQUID METAL FAST BREEDER REACTOR - cooling system for, structural testing of pipes and pipe fittings for, (E/T)
 PIPE FITTINGS; PIPES - structural testing of stainless steel, for sodium cooled reactor systems, (E/T)
 STAINLESS STEEL - strain behavior of Types 304 and 316, effects of stress distribution on high temperature, (E/T)
 STAINLESS STEEL - elastic behavior of Types 304 and 316, effects of stress distribution on high temperature, (E/T)
- 778 26:52328 (AEG-E--3-1883(Pt.1)) SODIUM-COOLED HIGH-ENERGY LEVEL BREEDER REACTOR. REFERENCE STUDY. Amon, F.; Lill, G.; Tischer, G.; Uhde, W. (comps.) (Allgemeine Elektrizitaets-Gesellschaft, AEG-Telefunken, Grosswelzheim (West Germany)). Apr 1971. vp. (In German). INIS.
- REACTORS, BREEDER - cost analysis for sodium-cooled
 REACTORS, BREEDER - design for sodium-cooled, reference
 REACTORS, LIQUID METAL-COOLED - design of reference, breeder
 REACTORS, LIQUID METAL-COOLED - cost analysis for breeder
- 779 26:52337 BRITAIN'S PROTOTYPE FAST REACTOR: FOCAL POINT OF THE BREEDER DEVELOPMENT PROGRAM. Rippon, Simon (Nuclear Engineering International, London). Elec. Light Power (Boston); 50: No. 5, 37-44(Mar 1972).
- PROTOTYPE FAST REACTOR - description of
- 780 26:52342 (ANL/EBR--56) EVALUATION AND PROPOSED MODIFICATION OF CANBERRA INDUSTRIES, INC., EQUIPMENT FOR NEUTRON MONITORING IN EBR-II. Moon, R. D.; Napper, D. H.; Moriarty,

K. J. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Sep 1971. Contract W-31-109-eng-38. 43p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - neutron monitoring in, testing and modification of equipment for

- 781 26:52346 (HEDL-TME--72-91) DEVELOPMENT OF AN UNDER-SODIUM ULTRASONIC SCANNER FOR IN-REACTOR SURVEILLANCE. Ord, R. N.; Smith, R. W. (Hanford Engineering Development Lab., Richland, Wash.). Jun 1972. Contract AT(45-1)-2170. 49p. Dep. NTIS.

REACTORS, LIQUID METAL-COOLED - core for sodium cooled, under-sodium ultrasonic scanner for inspection of
SODIUM - object imaging in liquid, ultrasonic scanner for

- 782 26:52350 (RDT-E--6-36-T(7-72)) LOW LEVEL FLUX MONITOR MECHANICAL SYSTEM FOR LIQUID METAL SERVICE (FABRICATION ONLY). (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jul 1972. 17p.

NEUTRONS - flux monitor mechanical system for liquid metal service, fabrication standards for
REACTORS, LIQUID METAL-COOLED - neutron flux monitor mechanical system for, fabrication standard for low level
STANDARDS - neutron flux monitor, mechanical system for liquid metal service, low level

- 783 26:52351 DATA SHEETS ON REACTOR CONTROL. Brennst.-Waerme-Kraft; 24: No. 7, 273-5(Jul 1972). (In German).

KNK POWER REACTOR - control of, data sheets on

- 784 26:52355 (COD--3019-1) SEMIANNUAL PROGRESS REPORT, SEPTEMBER 1, 1971--FEBRUARY 29, 1972. First, M. W.; Underhill, D. W.; Hall, R. R.; Baldwin, T. W.; Moeller, D. W. (Harvard Univ., Boston, Mass. Harvard Air Cleaning Lab.). Apr 1972. 42p. Dep. NTIS.

BLOWERS - sodium deposition in cover gas, (E)
FAST TEST REACTOR - fission gas adsorption systems for, effects of container rupture on pressurized, (E/T)
FISSION PRODUCTS - sorption by pressurized beds, effects of container rupture on, (E/T)
HEAT EXCHANGERS - sodium deposition in cover gas, (E)

- 785 26:52358 (ORNL-TM--3881) FAST REACTOR SHIELDING MONTHLY PROGRESS REPORT FOR MAY 1972, 189a NO. 10028, ACTIVITY NO. 40 01 61. Mynatt, F. R.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). Jul 1972. Contract W-7405-eng-26. 24p. Dep. NTIS.

FAST TEST REACTOR - fuel elements for, computer program calculation of power in stored
FAST TEST REACTOR - neutron flux in cavity and vessel support system of, (T)
FAST TEST REACTOR - gamma radiation distributions in vessel support system of, (T)
GAMMA RADIATION - distribution in test reactor vessel support system, (T)
NEUTRONS - flux distribution in test reactor cavity and vessel support system, (T)
REACTOR FUEL ELEMENTS - power in stored, effects of configuration on calculation of
TOWER SHIELDING FACILITY - pipe chase mockup in, neutron streaming in, (E/T)

- 786 26:52362 (ANL--7835) REMOVAL AND REPAIR OF EBR-II PRIMARY SODIUM PUMP NO. 1. Cerutti, B. C.; Deegan, G. E.; Nulton, J. D.; Perry, W. H.; Seever, R. E. (Argonne National Lab., Ill.). May 1972. Contract W-31-109-eng-38. 55p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - pump for, removal and repair of primary liquid sodium
PUMPS (LIQUID METAL) - removal of power reactor primary liquid sodium, procedures for
PUMPS (LIQUID METAL) - repair of power reactor primary liquid sodium

- 787 26:52363 (ANL/EBR--53) CONTROL OF SECONDARY-SODIUM FLOW IN EBR-II. Moon, R. D.; Moriarty, K. J. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Feb 1972. Contract W-31-109-eng-38. 56p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - cooling system for, control of sodium flow in secondary

- 788 26:52366 (INIS-mf--234) LMFBR MAIN HEAT EXCHANGER DESIGN CRITERIA. Pavese, M.; Ferrari, G. (Ansaldo S.p.A., Genoa (Italy)). 1971. 29p. (In Italian). INIS.
BOILERS - design of sodium--water, for LMFBR
LIQUID METAL FAST BREEDER REACTOR - steam generators for, design of sodium--water
- 789 26:52367 (KFK--1587) THERMAL SIMULATION OF FUEL RODS WITH INDIRECTLY ELECTRICALLY HEATED RODS. Malang, S.; Rust, K. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorbauelemente). May 1972. 45p. (In German). Dep. NTIS (U. S. Sales Only).
REACTOR FUEL ELEMENTS - heat transfer from liquid sodium cooled rod, use of electrically heated rods for simulation of
REACTORS, LIQUID METAL-COOLED - fuel elements in, simulation of heat transfer in sodium cooled rod
- 790 26:52368 (KFK-EXT--8/72-1) EXPERIMENTAL INVESTIGATION OF THE BOILING OF SODIUM IN NARROW CHANNELS AND ITS USE IN FAST REACTORS. Peppier, F. W. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Feb 1972. 130p. (In German). Dep. NTIS (U. S. Sales Only).
REACTOR FUEL ELEMENTS - coolant boiling in pin bundle subchannels, analysis of sodium, (E/T)
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel pin bundles for sodium cooled, coolant boiling in subchannels of, (E/T)
SODIUM - boiling in fast reactor fuel pin bundle subchannels, analysis of transient, (E/T)
- 791 26:52370 (RDT-M--14-1-T(7-72)) SODIUM COVER GAS: PURCHASE SPECIFICATIONS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jul 1972. 7p.
ARGON; HELIUM; NITROGEN - standards for use as sodium cover gas, purity
REACTORS, LIQUID METAL-COOLED - cooling system for sodium cooled, purity requirements for inert cover gases for
STANDARDS - sodium cover gas purity requirements
- 792 26:52373 INTEGRATED COOLANT CIRCUIT NUCLEAR REACTORS. Costes, Didier; Delisle, Jean-Paul; Gallo, Sabino; Schaller, Karl (to Commissariat a l'Energie Atomique). French Patent 2,077,444. 29 Oct 1971. Filed 4 Apr 1969. (In French).
REACTORS, LIQUID METAL-COOLED - cooling system for sodium-cooled, design of integrated
- 793 26:52375 (AEG-E--3-1883(Pt.2)) SODIUM-COOLED HIGH-ENERGY LEVEL BREEDER REACTOR. REFERENCE STUDY. Amon, F.; Lill, G.; Tischer, G.; Uhde, W. (comps.) (Allgemeine Elektrizitaets-Gesellschaft, AEG-Telefunken, Grosswelzheim (West Germany)). Apr 1971. vp. (In German). INIS.
REACTORS, BREEDER - fuel elements for development of sodium-cooled
REACTORS, BREEDER - development of, sodium-cooled, summary for 1969--70 of
REACTORS, LIQUID METAL-COOLED - development of breeder, summary for 1969--70 of
REACTORS, LIQUID METAL-COOLED - fuel elements for breeder, development of
- 794 26:52376 (ANL/EBR--47) CHARACTERIZATION OF THE POWER IN AN EXPERIMENTAL IRRADIATION SUBASSEMBLY OF MIXED-OXIDE FUEL IN EBR-II. Miller, L. B.; Golden, G. H.; Jarka, R. E.; Phillips, K. E. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Sep 1971. Contract W-31-109-eng-38. 39p. Dep. NTIS.
EXPERIMENTAL BREEDER REACTOR-II - fuel assembly for, axial power distribution in experimental mixed oxide
- 795 26:52380 (EURFNR--955) FAST BREEDER PROJECT. Second Quarterly Report, 1971. Hueper, R. (comp.) (Kernforschungszentrum, Karlsruhe (West Germany)). Translation of report

KFK--1271/2. 176p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.

REACTOR FUEL ELEMENTS - fabrication of uranium oxide (UO_2) rods, for fast breeder reactors
 REACTOR FUEL ELEMENTS - radiation testing of uranium oxide (UO_2) rods, for fast breeder reactors
 REACTOR FUEL ELEMENTS - cladding for fast breeder reactor, creep characteristics of
 REACTOR FUEL ELEMENTS - burnup for fast breeder, calculations for
 REACTOR FUEL ELEMENTS - thermal hydraulic characteristics of liquid sodium cooled assemblies, for fast breeder reactors, (E)
 REACTORS, BREEDER - fuel elements for fast, fabrication and radiation testing of uranium oxide (UO_2) rods
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 REACTORS, BREEDER - fuel elements for fast, burnup calculations for
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 REACTORS, BREEDER - safety aspects of fast
 REACTORS, BREEDER - radioactive effluents from fast
 REACTORS, BREEDER - fuel element assemblies for liquid sodium cooled fast, thermal hydraulic characteristics of, (E)
 REACTORS, FAST - fuel elements for breeder, fabrication and radiation testing of uranium oxide (UO_2) rods
 REACTORS, FAST - fuel element cladding for breeder, creep characteristics of
 REACTORS, FAST - coolant for breeder, corrosive effects of liquid sodium
 REACTORS, FAST - fuel elements for breeder, burnup calculations for
 REACTORS, FAST - physics measurements for breeder
 REACTORS, FAST - safety aspects of breeder
 REACTORS, FAST - radioactive effluents from breeder
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 REACTORS, LIQUID METAL-COOLED - fuel element assemblies for fast breeder, thermal hydraulic characteristics of, (E)
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 STAINLESS STEEL - corrosion by liquid sodium
 URANIUM OXIDES UO_2 - fabrication of rods of, method for

796

26:52381 (EURFNR--984) FAST BREEDER PROJECT. Third Quarterly Report, 1971. (Kernforschungszentrum, Karlsruhe (West Germany)). Translation of KFK--1271/3. 235p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.

NEUTRONS, FAST - effects on mechanical properties of fast breeder reactor fuel element cladding
 PLUTONIUM CARBIDES; PLUTONIUM NITRIDES - PuC -- PuN -- UC -- UN , fabrication of rods of, methods for
 REACTOR FUEL ELEMENTS - radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2), plutonium carbide (PuC)--uranium carbide (UC), and plutonium nitride (PuN)--uranium nitride (UN)
 REACTOR FUEL ELEMENTS - fabrication of plutonium carbide (PuC)--uranium carbide (UC) and plutonium nitride (PuN)--uranium nitride (UN) rods, for fast breeder reactors
 REACTOR FUEL ELEMENTS - cladding for fast breeder reactor, fast neutron radiation effects on mechanical properties of
 REACTOR FUEL ELEMENTS - thermal hydraulic characteristics of liquid sodium cooled assemblies, for fast breeder reactors, (E)
 REACTORS, BREEDER - fuel elements for fast, radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2) rods
 REACTORS, BREEDER - fuel elements for fast, fabrication and radiation testing of plutonium carbide (PuC)--uranium carbide (UC) and plutonium nitride (PuN)--uranium nitride (UN) rods
 REACTORS, BREEDER - fuel element cladding for fast, fast neutrons radiation effects on mechanical properties of
 REACTORS, BREEDER - coolant for fast, corrosive effects of liquid sodium
 REACTORS, BREEDER - physics measurements for fast
 REACTORS, BREEDER - safety aspects of fast
 REACTORS, BREEDER - radioactive effluents from fast
 REACTORS, BREEDER - fuel element assemblies for liquid sodium cooled fast, thermal hydraulic characteristics of, (E)
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 REACTORS, FAST - fuel elements for breeder, fabrication and radiation testing of plutonium carbide (PuC)--uranium carbide (UC) and plutonium nitride (PuN)--uranium nitride (UN) rods
 REACTORS, FAST - fuel element cladding for breeder, fast neutron radiation effects on mechanical properties of
 REACTORS, FAST - coolant for breeder, corrosive effects of liquid sodium
 REACTORS, FAST - physics measurements for breeder
 REACTORS, FAST - safety aspects of breeder

REACTORS, FAST - instrumentation for breeder, development of
 REACTORS, FAST - radioactive effluents from breeder
 REACTORS, FAST - fuel element assemblies for liquid sodium cooled breeder, thermal hydraulic characteristics of, (E)
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 STEEL - corrosion by liquid sodium
 URANIUM CARBIDES; URANIUM NITRIDES - PuC--PuN--UC--UN, fabrication of rods of, methods for

- 797 26:52384 (KFK--1555) THEORETICAL INVESTIGATION OF THE WALL TEMPERATURE MEASUREMENT IN SIMULATED FUEL RODS FOR THERMODYNAMIC EXPERIMENTS IN SODIUM. Moeller, R.; Tschoeke, H. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorbauelemente). Apr 1972. 45p. (In German). Dep. NTIS (U. S. Sales Only).
- REACTOR FUEL ELEMENTS - cladding for liquid sodium cooled, installation and performance of thermocouples for measurement of temperature distributions in
 REACTORS, LIQUID METAL-COOLED - fuel element cladding for, installation and performance of thermocouples for measurement of temperature distributions in
 THERMOCOUPLES - installation in fuel element cladding for measurement of temperature distribution in sodium cooled reactors
 THERMOCOUPLES - performance of small, for measurement of temperature distribution in liquid sodium cooled fuel element cladding
- 798 26:52389 HYDRAULIC HOLD-DOWN FOR NUCLEAR REACTOR FUEL ASSEMBLY. Finch, Lester M.; Anthony, Andy J. (to United States Atomic Energy Commission). U. S. Patent 3,666,624. 30 May 1972. Filed 18 Jul 1969.
- LIQUID METAL FAST BREEDER REACTOR - fuel assemblies in, description of hold-down device for
 REACTOR FUEL ELEMENTS - hold-down device for assemblies of LMFBR, description of
- 799 26:52391 (RDT-E--1-36-T(6-72)) FLOOR VALVE, REACTOR REFUELING AND MAINTENANCE FOR LMFBR. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Jun 1972. 17p. RSO.
- LIQUID METAL FAST BREEDER REACTOR - refueling system for, standard for floor valve for
 STANDARDS - floor valve for reactor refueling and maintenance
 VALVES - standard for floor, for reactor refueling and maintenance
- 800 26:52400 (ANL--7947) THERMOHYDRODYNAMIC MODEL FOR MOLTEN UO_2 --Na INTERACTION, PERTAINING TO FAST-REACTOR FUEL-FAILURE ACCIDENTS. Cronenberg, August W. (Argonne National Lab., Ill.). Jun 1972. Contract W-31-109-Eng-38. 109p. Dep. NTIS.
- REACTOR FUEL ELEMENTS - failure of sodium cooled fast, thermohydrodynamic model of molten uranium oxide (UO_2) interaction with sodium following, (E/T)
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element failure in sodium cooled, thermohydrodynamic model of molten uranium oxide (UO_2) interaction with sodium following, (E/T)
 SODIUM - thermal interaction of liquid, with molten uranium oxide (UO_2), (E/T)
 URANIUM OXIDES UO_2 - thermal interaction of molten, with liquid sodium, (E/T)
- 801 26:52405 (CONF-720906--4) INTERACTION OF THE STRUCTURE OF A SELECTED REACTOR CONTAINMENT WITH NEAR KILOBAR NUCLEAR WEAPON SHOCKWAVES IN AIR. Chester, C. V.; Chester, R. G. (Oak Ridge National Lab., Tenn.). Mar 1972. 11p. Dep. NTIS. From 3. international symposium on the military applications of blast simulators; Schwetzingen, West Germany (19 Sep 1972).
- NUCLEAR EXPLOSIONS, SURFACE - blast effects on sodium cooled reactor containment structures, model analysis of, (E/T)
 REACTOR CONTAINMENT STRUCTURES - blast effects on reinforced concrete, model analysis of nuclear, (E/T)
 REACTORS, LIQUID METAL-COOLED - containment structures for sodium cooled, nuclear blast effects on reinforced concrete, (E/T)

- 802 26:52406 (HEDL-TME--72-43) MELT-II: A TWO-DIMENSIONAL NEUTRONICS-HEAT TRANSFER PROGRAM FOR FAST REACTOR SAFETY ANALYSIS. Waltar, A. E.; Padilla, A.; Shields, R. J. (Hanford Engineering Development Lab., Richland, Wash.). Apr 1972. Contract AT(45-1)-2170. 382p. Dep. NTIS.
- COMPUTER PROGRAMS - MELT-II, for analysis of overpower and coolant loss accidents in liquid metal cooled fast breeder reactor, FORTRAN 5 for UNIVAC 1108
LIQUID METAL FAST BREEDER REACTOR - accidents in, computer program analysis of overpower and coolant loss
- 803 26:52409 (ORNL-TM--3831) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR MARCH--APRIL 1972. Cottrell, Wm. B. (Oak Ridge National Lab., Tenn.). Jul 1972. Contract W-7405-eng-26. 155p. Dep. NTIS.
- FISSION PRODUCTS - release from coated particle fuels, (E)
FISSION PRODUCTS - distribution in cooling systems of HTGR type reactors, (E)
GRAPHITE - corrosion of H327, by high temperature steam, (E)
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INFORMATION CENTERS - operation of Nuclear Safety, during March and April 1972
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IRON OXIDES Fe_2O_3 - iodine desorption from, effects of temperature on, (E)
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, instrumentation and temperature distribution in Failed Fuel Mockup bundle arranged pins, (E)
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PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)
PUMPS - design criteria for nuclear service, development program for
REACTOR FUEL ELEMENTS - temperature distribution in liquid sodium cooled bundle arranged pins, (E)
REACTOR FUEL ELEMENTS - instrumentation for liquid sodium cooled bundle arranged pins, thermocouple, (E)
REACTOR FUEL ELEMENTS - cladding for liquid sodium cooled, effects of temperature transients on failure of stainless steel
REACTOR FUEL ELEMENTS - heat transfer in water cooled, effects of coolant loss accident conditions on, (E/T)
REACTOR SAFETY - development activities during March and April 1972
REACTORS, GAS-COOLED - safety aspects of high temperature
REACTORS, LIQUID METAL-COOLED - standards for, development of engineering
REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly heat transfer characteristics during, (E/T)
REACTORS, WATER-COOLED - standards for, development of engineering
STANDARDS - development of reactor engineering, during March and April 1972
STEAM - corrosive effects on H327 graphite, (E)
THERMOCOUPLES - performance for sodium cooled fuel element testing facility
VALVES - design criteria for nuclear service, development program for
- 804 26:52413 AMERICANS PUSH AHEAD WITH FAST BREEDER REACTORS AFTER 20 YEARS RESEARCH. THE US ATOMIC ENERGY COMMISSION PUTS THE CASE FOR FAST REACTORS IN TERMS OF EFFICIENCY, SAFETY, AND THE ENVIRONMENT. Elec. Rev.; 122-5(28 Jul 1972).
- LIQUID METAL FAST BREEDER REACTOR - environmental report on, summary of
- 805 26:52443 (DOCKET-50016--167) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for May 1972. (Power Reactor Development Co., Detroit, Mich.). 29 Aug 1972. 15p. (PRDC-EF--105). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during May 1972
FERMI FAST BREEDER REACTOR - maintenance during May 1972
- 806 26:52444 (DOCKET-50016--168) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Order to Show Cause has been Evaluated and Notice of Hearing is Issued. (Directorate of Licensing (AEC), Washington, D. C.). 28 Aug 1972. 4p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operation of, notice of public hearing for extension of license for

- 807 26:52445 (DOCKET-50016--169) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Technical Specification Change Request 29 Including Revision 1 Withdrawn. (Power Reactor Development Co., Detroit, Mich.). 5 Sep 1972. 1p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operation of, technical specifications for Core A fuel and full power
- 808 26:52560 (N--72-15604) EMERGENCY COOLING ANALYSIS FOR THE LOSS-OF-COOLANT MALFUNCTION. Peoples, John A. (National Aeronautics and Space Administration, Cleveland, Ohio. Lewis Research Center). Jan 1972. 33p. (NASA-TM-X--2464; E--6520). NTIS.
- NUCLEAR AUXILIARY POWER SYSTEMS - coolant loss accidents in lithium cooled fast reactor, emergency cooling concepts for, (T)
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant loss accidents in lithium cooled space-power, emergency cooling concepts for, (T)
- 809 26:52561 (N--72-15606) ANALYSIS OF LOSS-OF-COOLANT ACCIDENT FOR A FAST-SPECTRUM LITHIUM-COOLED NUCLEAR REACTOR FOR SPACE-POWER APPLICATIONS. Turney, George E.; Petrik, Edward J.; Kieffer, Arthur W. (National Aeronautics and Space Administration, Cleveland, Ohio. Lewis Research Center). Jan 1972. 35p. (NASA-TM-X--2483; E--6571). NTIS.
- NUCLEAR AUXILIARY POWER SYSTEMS - coolant loss accidents in lithium cooled fast reactor, temperature response of core following, (T)
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant loss accidents in lithium cooled space-power, temperature response of core following, (T)
- 810 26:52564 (N--72-16520) ANALYSIS OF DASHPOT PERFORMANCE FOR ROTATING CONTROL DRUMS OF A LITHIUM-COOLED FAST-REACTOR CONCEPT. Wenzler, C. J. (National Aeronautics and Space Administration, Cleveland, Ohio. Lewis Research Center). Jan 1972. 25p. (NASA-TM-X--67992; E--6734). NTIS.
- REACTOR CONTROL ELEMENTS - brakes for rotating drum-type, performance of dashpots as, (T)
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - control drums for lithium cooled, dashpot performance for rotating, (T)
- 811 26:52618 (AEEW-M--997) SPECTRUM MEASUREMENTS IN FAST REACTOR ASSEMBLIES. Broomfield, A. M.; Paterson, W. J.; Sanders, J. E. (Atomic Energy Establishment, Winfrith (England)). Oct 1970. 46p. Dep. NTIS (U. S. Sales Only).
- CRITICAL ASSEMBLIES - neutron energy spectra measurements in VERA, summary of, (E/T)
ZEBRA REACTOR - neutron energy spectra measurements in, summary of, (E/T)
- 812 26:52620 (ANL--7927) ACTIVATION-RATE MEASUREMENTS IN THE ZPR-3 MOCKUP CRITICAL EXPERIMENTS. PART III. MEASUREMENTS OF FOIL-ACTIVATION RATES IN ASSEMBLIES 62 AND 63 OF ZPR-3 MOCKUPS OF EBR-II WITH A STAINLESS STEEL REFLECTOR. Dudey, N. D.; Popek, R. J.; Heinrich, R. R. (Argonne National Lab., Ill.). Jun 1972. Contract W-31-109-Eng-38. 48p. Dep. NTIS.
- CRITICAL ASSEMBLIES - neutron activation and fission rate measurements in ZPR-3 assemblies with stainless steel reflectors
EXPERIMENTAL BREEDER REACTOR-II - neutron activation and fission rate measurements in ZPR-3 mockups of, effects of stainless steel reflector on
- 813 26:52621 (BNWL--1102(DR.1)) U. K. COMMERCIAL DATA EMPLOYED IN FFTF FUEL PIN AND SUBASSEMBLY CONCEPTUAL DESIGN. Stevens, E. G.; Cohn, P. D.; Jackson, R. J.; Kolesar, D. C.; Mohr, C. L.; Padilla, A.; Wheeler, C. L. (Battelle-Northwest, Richland, Wash. Pacific Northwest Lab.). 29 May 1969. 31p. Dep. NTIS.
- FAST TEST REACTOR - fuel pins for, use of United Kingdom data in design of
- 814 26:52622 (CEA-N--1524) RAPSDIE-FORTISSIMO START-UP POWER MEASUREMENTS. Gourdon, Jean; Besoux, Michel; Chenal, Jean-Claude (Commissariat a l'Energie Atomique, Cadarache (France). Centre d'Etudes Nucleaires). Mar 1972. 54p. (In French). Dep. NTIS (U. S. Sales Only).

CADARACHE REACTORS (RAPSDIE) - startup of Fortissimo, power determination and control during

- 815 26:52624 (DOCKET-50231--123) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Answers to Questions in Connection With Termination of License. (Southwest Atomic Energy Associates). 3 Aug 1972. 25p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - costs for, requested data on

- 816 26:52625 (GEAP--13787) SEFOR FOLLOW-ON PROGRAM PHASE A. Final Report, June 15, 1971--December 31, 1971. Arterburn, J. O. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Mar 1972. Contract AT(04-3)-189. 376p. Dep. NTIS.

IN-PILE LOOPS - design characteristics of test fuel pin, for liquid sodium cooled test reactor

PRESSURE VESSELS - heat transfer through liquid sodium cooled test reactor

PRESSURE VESSELS - stress distribution in main flange of liquid sodium cooled test reactor

REACTOR CONTROL ELEMENTS - design characteristics of liquid sodium cooled test reactor

REACTOR FUEL ELEMENTS - performance limits for liquid sodium cooled Type 316 stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) rods

REACTOR FUEL ELEMENTS - design parameters for liquid sodium cooled vented rods

REACTOR FUEL ELEMENTS - design characteristics of liquid sodium cooled fast test reactor

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements for, performance limits for Type 316 stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) rods

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - physics measurements for, (E)

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements for, design parameters for vented rods

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - instrumentation for, design characteristics of monitoring

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - cooling system for, performance requirements for cold traps and vapor traps for

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - cooling system for, component stress analysis for

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - piping systems for, layout of liquid sodium

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - pressure vessel for, stress distribution in main flange of

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - pressure vessel for, heat transfer through

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel element assemblies for, design characteristics of

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - control elements for, design characteristics of

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - experimental facilities for, design characteristics of test fuel pin in-pile loop

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - quality assurance program for

TRAPS - performance requirements for cold and vapor, for liquid sodium cooled reactors

- 817 26:52627 (HEDL-TME--71-57) ANALYSIS OF FTR PHASE B CRITICAL EXPERIMENTS. PART-3. DOPPLER EFFECT IN ZPR-3, ASSEMBLY 51. Young, W. R.; Bennett, R. A. (Hanford Engineering Development Lab., Richland, Wash.). Apr 1972. Contract AT(45-1)-2170. 48p. Dep. NTIS.

CRITICAL ASSEMBLIES - Doppler effect in FTR core mockup in, measurement of small sample uranium oxide (UO_2), (E/T)

FAST TEST REACTOR - Doppler effect in ZPR-3 core mockup of, measurement of small sample uranium oxide (UO_2), (E/T)

- 818 26:52628 (HEDL-TME--72-66) CLIRA DECAY HEAT REMOVAL TEST. Winegardner, W. Kevin; Romsos, W. N. (Hanford Engineering Development Lab., Richland, Wash.). May 1972. Contract AT(45-1)-2170. 66p. Dep. NTIS.

FAST FLUX TEST FACILITY - fuel assembly handling in, decay heat removal by combined loop ex-vessel machine for irradiated, (E)

- 819 26:52629 (HEDL-TME--72-93) GAS TAG BURNUP ANALYSIS FOR FUEL FAILURE LOCATION AND DETECTION IN THE FTR. Boulette, E. T.; Schenter, R. E.; Schmittroth, F. (Hanford Engineering Development Lab., Richland, Wash.). Jul 1972. Contract AT(45-1)-2170. 43p. Dep. NTIS.

FAST TEST REACTOR - fuel failure detection and location in, use of rare gas isotopes as tags for
 KRYPTON ISOTOPES Kr-78; KRYPTON ISOTOPES Kr-80; KRYPTON ISOTOPES Kr-82 - properties as tag for detection and location of fuel element failure in FTR
 REACTOR FUEL ELEMENTS - failure detection and location, use of rare gas isotopes as tags for
 XENON ISOTOPES Xe-124; XENON ISOTOPES Xe-126; XENON ISOTOPES Xe-128; XENON ISOTOPES Xe-129 - properties as tag for detection and location of fuel element failure in FTR

- 820 26:52630 (JAERI-M--4658) PROMPT NEUTRON DECAY CONSTANTS AT DELAYED CRITICAL OF FCA FAST ASSEMBLIES OF URANIUM FUEL. Hiraoka, Toru; Nakano, Masafumi; Mukaiyama, Takehiko; Nakamura, Tomoo (Japan Atomic Energy Research Inst., Tokyo). Dec 1971. 8p. NTIS (U. S. Sales Only).
- CRITICAL ASSEMBLIES - fuel assemblies for FCA, prompt neutron decay constants for uranium, (E/T)
 NEUTRONS, PROMPT - decay constants at delayed critical for fast reactor uranium fuel assemblies, (E/T)
 REACTOR FUEL ELEMENTS - neutron decay constants for fast, delayed critical prompt, (E/T)
- 821 26:52635 (ORNL-TM--3883) EVALUATION OF THE ^{252}Cf METHOD FOR SOURCE LEVEL FLUX MONITORING IN THE FTR. Buhl, A. R.; Childs, R. L. (Oak Ridge National Lab., Tenn.). Aug 1972. Contract W-7405-eng-26. 50p. Dep. NTIS.
- CALIFORNIUM ISOTOPES Cf-252 - use for source level neutron flux monitoring in fast test reactor
 FAST TEST REACTOR - neutron flux monitoring in, evaluation of californium-252 method for source level
 NEUTRONS - flux monitoring in fast test reactor, evaluation of californium-252 method for source level
- 822 26:52636 (ORNL-TM--3928) FAST REACTOR SHIELDING MONTHLY PROGRESS REPORT FOR JUNE 1972. 189a No. 10028, Activity No. 40 01 61. Mynatt, F. R.; Gritzner, M. L.; Maerker, R. E.; McGregor, B. J. (Oak Ridge National Lab., Tenn.). Aug 1972. Contract W-7405-eng-26. 63p. Dep. NTIS.
- FAST TEST REACTOR - shielding for, neutron and γ flux in cavity, vessel support, and head compartment, (T)
 FAST TEST REACTOR - pipeway cavity in, neutron streaming in, (E/T)
 TOWER SHIELDING FACILITY - pipe chase mockup in, neutron streaming in, (E/T)
 TOWER SHIELDING FACILITY - duct mockup in, Bonner ball neutron flux traverses in, (E)
- 823 26:52661 FUEL PIN WITH SODIUM BONDING. Ernst, H. (to Licentia Patent-Verwaltungs GmbH). German Patent 2,032,030. 13 Jan 1972. (In German).
- REACTOR FUEL ELEMENTS - design of sodium-bonded pin, for sodium-cooled reactors
 REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, design of
- 824 26:52662 REACTOR CONTROL ROD DRIVE. Kuenzel, H.; Pawlitzki, R.; Schilling, D. (to Siemens AG). German Patent 2,031,913. 13 Jan 1972. (In German).
- REACTOR CONTROL SYSTEMS - drives for liquid metal-cooled, design of motor driven spindle
 REACTORS, LIQUID METAL-COOLED - control rod drives for design of motor driven spindle
- 825 26:53082 (ORNL--4794, pp 15-25) DEVELOPMENT OF AQUEOUS PROCESSES FOR LMFBR FUELS. Aug 1972. In Chemical Technology Division annual progress report for period ending March 31, 1972.
- FISSION PRODUCTS - separation of volatile, in reprocessing of LMFBR fuels by voloxidation, pp. 17-20
 IODINE - separation of fission product, from off-gases in reprocessing of LMFBR fuel, pp. 21-2
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, development of aqueous methods for
 LIQUID METAL FAST BREEDER REACTOR - fuels for, radiation properties and shielding requirements of, pp. 22-3

RADIOCHEMICAL PROCESSING PLANTS - effluent control from, pp. 24-5
 REACTOR FUELS - reprocessing of LMFBR, development of aqueous methods for
 REACTOR FUELS - thermal conductivity of sheared prototype LMFBR, p. 16
 REACTOR FUELS - radiation effects on dissolution characteristics of LMFBR, pp. 20-1
 SHIELDED CONTAINERS - development for shipping irradiated LMFBR fuel, pp. 15-16
 TRITIUM - separation from off-gases in reprocessing of LMFBR fuel, pp. 21-2

- 826   26:53732 (WCAP--1615) SHOCK LOADING ANALYSIS OF CORE SUBASSEMBLY: APDA CORE. Schramm, R.; Widmer, T. F. (Westinghouse Electric Corp., Pittsburgh, Pa. Atomic Power Dept.). Aug 1960. 26p. Dep. NTIS.
- FERMI FAST BREEDER REACTOR - core subassembly of, shock loading during handling of
 REACTOR FUEL ELEMENTS - handling and shipping of, analysis of shock loading parameters for
- 827   26:55083 (EURFNR--1001) FAST REACTOR PROGRAMME. Fourth Quarter 1971 Progress Report. Hoekstra, E. K. (comp.) (Reactor Centrum Nederland, Petten). Mar 1972. 78p. (RCN--168). Dep. NTIS (U. S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.
- BOILING - detection of sodium, acoustic method for
 CRITICAL ASSEMBLIES - operation of STEK, quarterly summary of
 NETHERLANDS - fast reactor development in, progress on
 REACTOR FUEL ELEMENTS - development of fast, progress in Netherlands on
 REACTOR FUEL ELEMENTS - cladding for fast, radiation effects on embrittlement of stainless steels Type 304 and Type 316
 REACTORS, FAST - development in Netherlands, progress on
 REACTORS, FAST - core physics of, effects of fission products on
 REACTORS, FAST - safety of, effects of fuel element cladding rupture and coolant loss accidents on
 REACTORS, FAST - coolant loss accidents in, temperatures during
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems for, heat transfer studies in liquid sodium
 SODIUM - boiling in, acoustic method for detection of
 STAINLESS STEEL - radiation effects in embrittlement of Type 304 and Type 316, fast neutron
- 828   26:55095 TENDENCIES IN THE DEVELOPMENT OF FAST BREEDER REACTORS. Haefele, W. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt. Atomtech.; 17: No. 7, 378-84 (Jul 1972). (In German).
- SNR REACTOR - development program for
- 829   26:55096 PROTOTYPE NUCLEAR POWER PLANT SNR 300. Brandstetter, A.; Guthmann, E. (INTERATOM, Bensberg, Ger.). Atomwirt. Atomtech.; 17: No. 7, 368-71 (Jul 1972). (In German).
- SNR REACTOR - design parameters of, summary of
- 830   26:55097 ORGANIZATION AND ECONOMIC SIGNIFICANCE OF BREEDER DEVELOPMENT. Scheuten, G. H. (Schnell-Brueter-Kernkraftwerksgesellschaft mbH, Essen). Atomwirt. Atomtech.; 17: No. 7, 366-8 (Jul 1972). (In German).
- SNR REACTOR - development of, program for
- 831   26:55098 PROJECT SNR: GOVERNMENTAL SUPPORT AND INTERNATIONAL COOPERATION. Daeunert, U.; Schmidt-Kuester, W. J. (Bundesministerium fuer Bildung und Wissenschaft, Bonn). Atomwirt. Atomtech.; 17: No. 7, 363-6 (Jul 1972). (In German).
- SNR REACTOR - development of, program for
- 832   26:55113 (CONF-720901--(Bks.1 and 2), pp 211-28) STUDIES OF METHODS FOR FAST NEUTRON MULTIGROUP CROSS SECTION GENERATION AND THEIR EFFECT UPON THE NEUTRONICS PROPERTIES OF LMFBR CRITICAL ASSEMBLIES. Stacey, W. M. Jr.; Henryson II, H.; Zolotar, B. A.; Hwang, R. N.; Toppel, B. J.; Stenberg, C. G.; Pennington, E. M. (Argonne National Lab., Ill.).

1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.

LIQUID METAL FAST BREEDER REACTOR - physics calculations for, effects of fast neutron multigroup cross section generation methods on
NEUTRONS, FAST - cross section generation methods for, effects on fast reactor physics calculations of multigroup

- 833 26:55114 (CONF-720901--(Bks.1 and 2), pp 724-38) GE NUCLEAR DESIGN AND BENCHMARK CRITICAL EXPERIMENT PLAN FOR THE LMFBR DEMONSTRATION PLANT. Bailey, H. S.; Stewart, S. L. (General Electric Co., Sunnyvale, Calif.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - criticality measurements in ZPPR-3 for liquid metal fast breeder core mockups
LIQUID METAL FAST BREEDER REACTOR - criticality measurements on ZPPR-3 core mockups of, program for
- 834 26:55116 (CONF-720901--(Bks.1 and 2), pp 789-808) DEMONSTRATION REACTOR BENCHMARK PROGRAM. Davey, W. G. 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - criticality measurements in ZPPR and ZPR-6, program for benchmark
LIQUID METAL FAST BREEDER REACTOR - physics parameters of, program for benchmark measurements on
- 835 26:55117 (CONF-720901--(Bks.1 and 2), pp 809-21) SPATIALLY DEPENDENT BENCHMARK PARAMETERS IN THE INITIAL DEMONSTRATION PLANT CRITICAL ASSEMBLY. Amundson, P. I.; Davey, W. G.; Palmer, R. G.; (and others). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - criticality measurements in ZPPR, benchmark
LIQUID METAL FAST BREEDER REACTOR - physics parameters of, benchmark measurements on
- 836 26:55118 (CONF-720901--(Bks.1 and 2), pp 822-38) REACTOR PHYSICS AND FAST POWER BREEDERS: MASURCA CORE R-Z PROGRAM. Barre, J. Y.; Boyer, J.; Mougnot, J. C.; Sicard, B. 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - criticality measurements in MASURCA, program for
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - physics parameters of sodium cooled, MASURCA measurements of
- 837 26:55119 (CONF-720901--(Bks.1 and 2), pp 888-904) EXPERIMENTAL STUDY OF BURN-UP IN FAST BREEDER REACTORS. Bouchard, J. (CEN, Fontenay-aux-Roses, France); Chavardes, D.; Darrouzet, M.; Gourdon, J.; Robin, M. 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CADARACHE REACTORS (RAPSODIE); REACTORS, BREEDER; REACTORS, FAST - fuel burnup in, program for measurement of
- 838 26:55120 (CONF-720901--(Bks.1 and 2), pp 905-27) EBR-II IRRADIATION PHYSICS. Meneghetti, D.; Loewenstein, W. B. (Argonne National Lab., Ill.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- EXPERIMENTAL BREEDER REACTOR-II - fuel element irradiation testing in, summary of methods for

- 839 26:55123 (CONF-720901--(Bks.1 and 2), pp 986-1005) SEFOR: VERIFICATION OF THE DOPPLER TRANSIENT SHUTDOWN CAPABILITY OF LMFBR's. Freeman, D. D.; Greebler, P.; Noble, L. D.; Pflasterer, G. R. (General Electric Co., Sunnyvale, Calif.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- LIQUID METAL FAST BREEDER REACTOR; SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - Doppler reactivity feedback in, measurements of transient
- 840 26:55128 INSTALLATION FOR OBSERVING THE POSITION OF A STRUCTURE INSIDE A NUCLEAR REACTOR. Debergh, Philippe; Lagrange, Maurice (to Commissariat a l'Energie Atomique). French Patent 2,091,902. 21 Jan 1972. Filed 10 Apr 1970. (In French).
- REACTORS - core-supporting structure in, equipment for observing position of
 REACTORS, LIQUID METAL-COOLED - core supporting structure in, equipment for observing position of
 REMOTE-VIEWING EQUIPMENT - design for positioning core-supporting structure inside reactor
- 841 26:55129 FAST BREEDER REACTOR. Spenke, H. (to Siemens AG). German Patent 1,614,404. 17 Feb 1972. (In German).
- REACTORS, BREEDER - core design of fast, for decreased coolant void coefficient
 REACTORS, FAST - core design of breeder, for decreased coolant void coefficient
 REACTORS, LIQUID METAL-COOLED; REACTORS, SUPERHEATING - core design of fast breeder, for decreased void coefficient
- 842 26:55132 (ANL/EBR--63) DATA-PROCESSING SYSTEM FOR INSTRUMENT MAINTENANCE AND CALIBRATION AT EBR-II. Moriarty, K. J.; Ringquist, J. M. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Jun 1972. Contract W-31-109-eng-38. 51p. Dep. NTIS.
- DATA PROCESSING SYSTEMS - operation of computer, for periodic maintenance and calibration of reactor instrumentation
 EXPERIMENTAL BREEDER REACTOR-II - instrumentation for, data processing systems for periodic maintenance and calibration of
 EXPERIMENTAL BREEDER REACTOR-II - data processing system for periodic maintenance and calibration of instrumentation for
- 843 26:55134 (CONF-720901--(Bks.1 and 2), pp 579-98) BORON AND TANTALUM CONTROL ROD STUDIES AND ABSOLUTE GAMMA RAY ABSORBED DOSES IN A LMFBR CRITICAL. Carpenter, S. G.; Simons, G. G.; Olson, A. P.; Goin, R. W.; Plummer, J. P. 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - control rod mockups in ZPPR, reactivity worths and γ heating of boron and tantalum, (E)
 LIQUID METAL FAST BREEDER REACTOR - control rods for, reactivity worths and γ heating of boron and tantalum, (E)
 REACTOR CONTROL ELEMENTS - reactivity worths of boron and tantalum, in liquid metal fast breeder core mockup, (E)
 REACTOR CONTROL ELEMENTS - gamma heating of boron and tantalum, in liquid metal fast breeder core mockup, (E)
- 844 26:55139 (ANL--7911(Suppl.1)) COMPARISON OF A TWO-DIMENSIONAL HYDRODYNAMICS CODE (REXCO) TO EXCURSION EXPERIMENTS FOR FAST REACTOR CONTAINMENT. Ash, J. E.; Chang, Y. W.; Julke, R. T. (Argonne National Lab., Ill.). Jul 1972. Contract W-31-109-eng-38. 18p. Dep. NTIS.
- REACTOR CONTAINMENT STRUCTURES - deformation of fast sodium cooled, effects of excursion pressure loading on, (E/T)
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - containment structures for sodium cooled, effects of excursion pressure waves on deformation of, (E/T)
- 845 26:55144 (CONF-720901--(Bks.1 and 2), pp 480-98) FAST REACTOR SHIELDING METHODS DEVELOPMENT. Mynatt, F. R.; Gritzner, M. L. (Oak Ridge National Lab., Tenn.). 1972.

From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.

FAST TEST REACTOR - vessel head compartment for, neutron and γ dose rates in, (T)
REACTORS, FAST - shielding calculations for, methods development for
SHIELDING - calculations for fast reactors, methods development for

- 846 26:55145 (GEAP--13822-1) LMFBR SHIELDING DESIGN EXPERIMENTS AND METHODS EVALUATION. First Quarterly Progress Report, January--March 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Apr 1972. Contract AT(04-3)-189. 26p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - shielding for, design of experiments for development of

- 847 26:55147 (AI-AEC-Memo--12736) HNPf RETIREMENT: DISPOSITION OF SODIUM. Boardman, T. J.; Paulett, T. A. (Atomics International, Canoga Park, Calif.). 30 Sep 1968. Contract AT(04-3)-701. 137p. Dep. NTIS.

HALLAM POWER REACTOR - cooling system of, sodium removal and disposition during dismantling of
HEAT EXCHANGERS; PIPES; PUMPS - dismantling of sodium cooled reactor, removal of sodium and decontamination during
SODIUM - decontamination of coolant, procedures during reactor dismantling for
SODIUM - disposal of coolant, procedures during reactor dismantling for
SODIUM - shipping of irradiated, from Hallam Power Reactor
TANKS - dismantling of sodium cooled reactor, removal of sodium and decontamination during

- 848 26:55150 (CONF-710548-- , pp 1-16) PRESENTATION MADE TO MEETING OF SODIUM-WATER REACTION SPECIALISTS. Lions, N.; Lacroix, A.; Schwab, B.; Lafon, A.; Trimouille, C. (Atomic Energy Commission, Cadarache, France). Jul 1972. From Specialists' meeting on sodium--water reactions; Melekess, USSR (18 May 1971). In Specialists' meeting on sodium--water reactions.

BOILERS - leakage of water into sodium in steam generator, damage and effects on safety of
PHENIX FAST REACTOR - steam generator for, effects of sodium--water reactions on
REACTOR SIMULATORS - development of analog and digital, for sodium--water reactions
SODIUM - reactions with water in steam generators, tube damage from
WATER - reactions with sodium in steam generators, tube damage from

- 849 26:55151 (CONF-710548-- , pp 17-38) LARGE LEAK TESTS IN A MODEL OF A STRAIGHT-TUBE STEAM GENERATOR. Dumm, K. (INTERATOM, Bensberg, Ger.). Jul 1972. From Specialists' meeting on sodium--water reactions; Melekess, USSR (18 May 1971). In Specialists' meeting on sodium--water reactions.

BOILERS - leak testing of straight tube, parameters for large
SNR REACTOR - steam generators for, leak testing of straight tube models of

- 850 26:55155 (CONF-710548-- , pp 129-54) OUTLINE OF PNC'S ACTIVITIES IN THE FIELD OF SODIUM-WATER REACTION. Hori, Masao; Sato, Minoru; Nei, Hiromichi; Tanaka, Toshikazu; Hishida, Makoto Jul 1972. From Specialists' meeting on sodium--water reactions; Melekess, USSR (18 May 1971). In Specialists' meeting on sodium--water reactions.

BOILERS - development of sodium--water steam generator, test programs for
JAPANESE EXPERIMENTAL FAST REACTOR - steam generators for, development of
SODIUM - reactions with water, kinetics of
WATER - reactions with sodium, kinetics of

- 851 26:55156 (CONF-710548-- , pp 155-70) DETECTION OF SMALL-LEAK SODIUM-WATER REACTION IN THE PROTOTYPE LMFBR STEAM GENERATOR BY IN-SODIUM TYPE HYDROGEN DETECTOR. Ikemoto, Ichiro; Hori, Masao. Jul 1972. From Specialists' meeting on sodium--water reactions; Melekess, USSR (18 May 1971). In Specialists' meeting on sodium--water reactions.

BOILERS - leaks in sodium--water steam generators, use of hydrogen detector for detection of small
JAPANESE EXPERIMENTAL FAST REACTOR - steam generators for, use of hydrogen detector for

detection of small leaks in
 LEAK DETECTORS - use of hydrogen detectors for sodium--water
 SODIUM - reactions with water, use of hydrogen detector for detection of
 WATER - reactions with sodium, use of hydrogen detectors for detection of

- 852 26:55158 (CONF-710548-- , pp 187-205) SOME NOTES ON SODIUM/WATER REACTION WORK. Bray, J. A. (Dounreay Experimental Reactor Establishment, Thurso, Scotland). Jul 1972. From Specialists' meeting on sodium--water reactions; Melekes, USSR (18 May 1971). In Specialists' meeting on sodium--water reactions.
- HEAT EXCHANGERS - damage to, effects of sodium--water reactions on
 PROTOTYPE FAST REACTOR - heat exchangers for, description of
 SODIUM - reactions with water, summary of study of large-scale
 SODIUM HYDRIDES; SODIUM HYDROXIDES; SODIUM OXIDES - NaH -- Na_2O -- NaOH , physical properties of
 WATER - reactions with sodium, summary of study of large scale
- 853 26:55162 (CONF-710959-- , Paper 2) OBSERVATIONS ON THE BEHAVIOR OF RADIOACTIVE PRODUCTS ON RAPSODIE. De Fremont, R. (CEN, Cadarache, France). 12p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
- CADARACHE REACTORS (RAPSODIE) - cooling system of, post operation inspection and monitoring of
 CADARACHE REACTORS (RAPSODIE) - fuel elements of, location and effects of rupture of pin
- 854 26:55163 (CONF-710959-- , Paper 3) DECONTAMINATION EXPERIENCE ON RAPSODIE. De Fremont, R. (CEN, Cadarache, France). 2p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
- CADARACHE REACTORS (RAPSODIE) - cooling system of, decontamination of primary, (E)
 CADARACHE REACTORS (RAPSODIE) - pumps of, decontamination of primary coolant
- 855 26:55164 (CONF-710959-- , Paper 8) RADIOACTIVE MATERIAL TRANSPORT IN FLOWING SODIUM SYSTEMS. Brehm, W. F.; Koehmstedt, P. L.; Kovacevich, E. A.; Shannon, D. W. (Battelle-Northwest Labs., Richland, Wash.). 17p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
- HEAT TRANSFER SYSTEMS - corrosion product release, transport and deposition in liquid sodium, (E)
 REACTORS, LIQUID METAL-COOLED - cooling systems of, corrosion product release, transport, and deposition in, (E)
 SODIUM - corrosion product release, transport, and deposition in flowing liquid, (E)
- 856 26:55166 (CONF-710959-- , Paper 10) FISSION AND CORROSION PRODUCT BEHAVIOUR IN PRIMARY SYSTEMS OF LMFBR's: A BRIEF REVIEW OF CURRENT STATUS OF WORK BEING CARRIED OUT IN UK. Thorley, A. 11p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
- FISSION PRODUCTS - behavior in liquid sodium systems
 HEAT TRANSFER SYSTEMS - performance of liquid sodium, effects of corrosion and corrosion product deposition on
 REACTOR FUEL ELEMENTS - corrosion of stainless steel clad, effects of stresses on
 REACTORS, BREEDER; REACTORS, FAST - cooling systems of sodium cooled, fission and corrosion product behavior in
 REACTORS, LIQUID METAL-COOLED - cooling systems of sodium, fission and corrosion product behavior in
 REACTORS, POWER - cooling systems of sodium cooled, fission and corrosion product behavior in
 SODIUM - corrosive effects on stainless steels of flowing liquid
 STAINLESS STEEL - corrosion by flowing liquid sodium
- 857 26:55167 (CONF-710959-- , Paper 11) BEHAVIOUR OF RADIOACTIVE IMPURITIES IN DFR PRIMARY LIQUID METAL COOLANT. Davies, R. A.; Drummond, J. L. (Dounreay Experimental Reactor Establishment, Scotland). 22p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).

- DOUNREAY FAST REACTOR - coolant contamination in, mechanisms of, (E)
 DOUNREAY FAST REACTOR - fuel transport in NaK coolant of, mechanisms of, (E)
 DOUNREAY FAST REACTOR - fission product transport in NaK coolant of, mechanisms of, (E)
 DOUNREAY FAST REACTOR - fuel element corrosion in NaK coolant of, mechanisms of, (E)
 DOUNREAY FAST REACTOR - cooling systems of, mechanisms of fission and corrosion product deposition in, (E)
 DOUNREAY FAST REACTOR - cooling systems of, effectiveness of water for decontamination of, (E)
 FISSION PRODUCTS - transport in NaK, mechanisms of, (E)
- 858 26:55168 (CONF-710959-- , Paper 12) CORROSION MASS TRANSFER IN PRIMARY SYSTEMS OF LMFBR'S. Menken, H. G. (INTERATOM, Bensberg, Ger.). 27p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
 HEAT TRANSFER SYSTEMS - corrosion problems in liquid sodium, comparison of model estimates with experimental results on, (E/T)
 SODIUM - corrosive effects on austenitic stainless steel, effects of temperature on, (E/T)
 STAINLESS STEEL - corrosion by liquid sodium of austenitic, effects of temperature on, (E/T)
 SNR REACTOR - cooling systems of, corrosion problems in, (E/T)
 SNR REACTOR - cooling systems of, effects of temperature on corrosion product deposits in, (E/T)
- 859 26:55169 (CONF-710959-- , Paper 13) SURVEY ABOUT CALCULATION METHODS FOR THE ACTIVITY INVENTORY IN THE PRIMARY SYSTEM OF SNR. Merkel, A. (INTERATOM, Bensberg, Ger.). 8p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
 FISSION PRODUCTS - release to fast reactor sodium coolant, boundary conditions for, (T)
 SNR REACTOR - cooling systems of, sources of radioactivity in, (T)
 SNR REACTOR - design basis accidents in, effects of fission product release on, (T)
 SNR REACTOR - fuel element cladding of, effects on coolant contamination of defects in, (T)
 SNR REACTOR - structural materials in, effects on coolant contamination of corrosion of, (T)
 SNR REACTOR - coolant activation in, (T)
- 860 26:55171 (CONF-710959-- , Paper 15) IMPURITIES IN COVER GAS SYSTEMS: SOME ASPECTS OF THEIR EFFECTS ON THE DESIGN OF LMFBR's. Webster, J. M. 7p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
 FISSION PRODUCTS - diffusion into cooling system cover gases, problems of
 REACTORS, LIQUID METAL-COOLED - cooling systems for sodium, problems of impurities in cover gas systems for
 SODIUM - cover gas systems for, problems of impurities in
- 861 26:55172 (CONF-710959-- , Paper 16) BRIEF OUTLINE OF RADIATION AND REPAIR ENGINEERING PROGRAM PLAN. Brehm, W. F. (Hanford Engineering Development Lab., Richland, Wash.). 8p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
 FAST FLUX TEST FACILITY; REACTORS, LIQUID METAL-COOLED - cooling systems of, effects of corrosion on radioactivity levels in
- 862 26:55176 (KFK--1548) PHENOMENOLOGICAL INVESTIGATION OF THE FLOW DISTRIBUTION BEHIND LOCAL COOLANT CHEMICAL BLOCKAGE IN ROD BUNDLES. Basmer, P.; Kirsch, D.; Schultheiss, G. F. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Jan 1972. 32p. (In German). Dep. NTIS (U. S. Sales Only).
 REACTOR FUEL ELEMENTS - coolant flow through hexagonal assemblies of, method for visual study of
 SODIUM - flow through fuel element assemblies of liquid, effects of partial blockage on distribution of
 SNR REACTOR - coolant flow in, effects of partial blockage in fuel element assemblies on distribution of

- 863 26:55178 (RD/B/N--2364) IGNITION OF LIQUID METAL: PEROXIDE MIXTURES. Newman, R. N.; Smith, C. A. (Central Electricity Generating Board, Berkeley (England). Berkeley Nuclear Labs.). Jun 1972. 6p. Dep. NTIS (U. S. Sales Only).
- REACTORS, FAST - coolant for liquid metal cooled, combustion characteristics of liquid sodium and sodium peroxide mixtures, (E)
 REACTORS, LIQUID METAL-COOLED - coolant for fast, combustion characteristics of liquid sodium and sodium peroxide mixtures, (E)
 SODIUM - combustion characteristics of mixtures of sodium peroxide and liquid, (E)
 SODIUM PEROXIDES - combustion characteristics of mixtures of liquid sodium and, (E)
- 864 26:55182 STUDY AND TESTS OF SMALL COMPONENTS OF SECONDARY CIRCUITS OF FAST Na COOLED REACTORS. Beaufriere, J.; de Montardy, A.; Nedelec, J. (Electricite de France, Ecuelles). Energ. Nucl. (Paris); 14: No. 1, 17-28 (1972). (In French).
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, testing of components for secondary
- 865 26:55184 (ANL/EBR--57) XENON-TAGGING OF EBR-II DRIVER FUEL. EBR-II Project. Madson, A. A.; Laug, M. T. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Feb 1972. Contract W-31-109-Eng-38. 24p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, procedures for xenon tagging pin type driver
 REACTOR FUEL ELEMENTS - tagging procedures for pin type, xenon
 XENON ISOTOPES - tagging of pin type fuel elements, procedures for
- 866 26:55185 (CONF-710959-- , Paper 1) TEMPESTE TEST: IN PILE EXPERIMENT ON THE TRANSFER OF FISSION GASES. De Fremont, R. (CEN, Cadarache, France). 5p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
- CADARACHE REACTORS (RAPSODIE) - fuel element failures in, radioactive tracer technique for locating
 CADARACHE REACTORS (RAPSODIE) - rare gas transport in
 PHENIX FAST REACTOR - fuel element failures in, radioactive tracer technique for locating
 PHENIX FAST REACTOR - rare gas transport in
 RARE GASES - transport in reactor core, tracer method for determining
- 867 26:55189 (GEAP--10028-39) SODIUM-COOLED REACTORS FAST CERAMIC REACTOR DEVELOPMENT PROGRAM. Thirty-Ninth Quarterly Report, May--July 1971. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Aug 1971. Contract AT(04-3)-189. 99p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - fuel irradiation testing in, status of mixed oxide
 FAST CERAMIC REACTOR - fuel elements for, development during May to July 1971
 FAST CERAMIC REACTOR - core for, design and kinetics analysis of
 FAST CERAMIC REACTOR - safety of, transient overpower and coolant flow loss effects on
 INCOLOY 800 - radiation effects on swelling and mechanical properties of, fast neutron, (E)
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, development of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)
 NEUTRONS, FAST - effects on Incoloy 800 and stainless steels Type 316, Type 321, and Type 347
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects testing of fuels of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , properties of fuels of, mechanical, physical, and thermal, (E)
 REACTOR FUEL ELEMENTS - performance of defected mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, in flowing liquid sodium
 REACTOR FUEL ELEMENTS - cladding for mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, development and testing of stainless steel
 REACTOR FUEL ELEMENTS - radiation effects testing of mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast
 STAINLESS STEEL - radiation effects on swelling and mechanical properties of Type 316, Type 321, and Type 347, fast neutron, (E)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects testing of fuels of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , properties of fuels of, mechanical, physical, and thermal, (E)

- 868 26:55190 (GEAP--10028-42) SODIUM-COOLED REACTORS FAST CERAMIC REACTOR DEVELOPMENT PROGRAM. Forty-Second Quarterly Report, February--April 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). May 1972. Contract AT(04-3)-189. 123p. Dep. NTIS.
- FAST CERAMIC REACTOR - fuel elements for, development during February to April 1972
 FAST CERAMIC REACTOR - core for, design and kinetics analysis of
 FAST CERAMIC REACTOR - safety of, transient overpower and coolant flow loss effects on
 FAST CERAMIC REACTOR - safety of, development of models for analysis of
 FAST FLUX TEST FACILITY - fuel element assemblies for, design of grid spaced driver
 NEUTRONS, FAST - radiation effects on stainless steels Type-304, Type-316, Type-321, and Type-321-H
 REACTOR FUEL ELEMENTS - performance of defected mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, in flowing liquid sodium
 REACTOR FUEL ELEMENTS - fission products in, migration of cesium and tellurium
 REACTOR FUEL ELEMENTS - radiation effects testing of mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast
 REACTOR FUEL ELEMENTS - cladding for mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, development and testing of stainless steel
 STAINLESS STEEL - radiation effects on swelling and mechanical properties of Type-304, Type-316, Type-321, and Type-321-H, fast neutron
- 869 26:55191 (ORNL-TM--3656) FINAL SYSTEMS DESIGN DESCRIPTION OF THE FAILED FUEL MOCKUP (FFM) OF THE LIQUID-METAL FAST BREEDER REACTOR. Grindell, A. G.; MacPherson, R. E. (comps.) (Oak Ridge National Lab., Tenn.). Sep 1972. Contract W-7405-eng-26. 187p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, design of Failed Fuel Mockup for thermal and hydraulic testing of
- 870 26:55192 (ORNL-TM--3761) PRELIMINARY COOLANT TEMPERATURE OSCILLATION MEASUREMENTS AT THE FUEL-FAILURE MOCKUP. Fry, D. N.; Kerlin, T. W. (Oak Ridge National Lab., Tenn.). Aug 1972. Contract W-7405-eng-26. 23p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel assemblies for, Fuel Failure Mockup measurements of coolant temperature oscillations in
- 871 26:55207 (ORNL-TM--3900) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR MAY--JUNE 1972. Cottrell, Wm. B. (Oak Ridge National Lab., Tenn.). Sep 1972. Contract W-7405-eng-26. 144p. Dep. NTIS.
- FISSION PRODUCTS - release from coated particle fuels, effects of annealing temperatures on, (E)
 FISSION PRODUCTS - distribution in cooling systems of HTGR type reactors, (E)
 GRAPHITE - corrosion of H327, by high temperature steam, (E)
 HEATERS - performance of electric, for liquid sodium cooled fuel element testing facility
 INFORMATION CENTERS - operation of Nuclear Safety, during May and June 1972
 IODINE - desorption from iron oxide (Fe_3O_4), effects of steam on, (E)
 IRON OXIDES Fe_3O_4 - iodine desorption from, effects of steam on, (E)
 LIQUID METAL FAST BREEDER REACTOR - fuel element bundles for, Failed Fuel Mockup facility for testing
 LIQUID METAL FAST BREEDER REACTOR - fuel element bundles for, effects of configuration and flow blockage area on heat transfer coefficients and temperature distribution in, (E/T)
 NOZZLES - stresses in reactor pressure vessel, effects of attachment configuration on, (E/T)
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 PRESSURE VESSELS - fracture toughness of heavy section steel, (E)
 PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)
 PUMPS - design criteria for nuclear service, development program for
 REACTOR FUEL ELEMENTS - temperature distribution in mockup liquid sodium cooled bundles, effects of configuration and flow blockage area on, (E/T)
 REACTOR FUEL ELEMENTS - heat transfer coefficients in mockup liquid sodium cooled bundles, effects of configuration and flow blockage area on, (E/T)
 REACTOR FUEL ELEMENTS - design characteristics for mockup liquid sodium cooled bundles
 REACTOR FUEL ELEMENTS - thermocouples for mockup liquid sodium cooled bundles, arrangement of
 REACTOR FUEL ELEMENTS - heat transfer in water cooled, effects of coolant loss accident conditions on, (E/T)
 REACTOR SAFETY - development activities during May and June 1972
 REACTORS, LIQUID METAL-COOLED - standards for, development of engineering
 REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly heat transfer

characteristics during, (E/T)
 REACTORS, WATER-COOLED - standards for, development of engineering
 STANDARDS - development of reactor engineering, during May and June 1972
 STEAM - corrosive effects on H327 graphite, (E)
 THERMOCOUPLES - arrangement for mockup liquid sodium cooled fuel rod bundles
 VALVES - design criteria for nuclear service, development program for

- 872 26:55218 (EURFNR--976) CLADDING CONTROL ON NUCLEAR REACTOR FUEL ELEMENTS. Jacobi, S.; Tradowsky, K. (Kernforschungszentrum, Karlsruhe (West Germany). Labor fuer Elektronik und Messtechnik). Translation of report KFK--1452. 11p. Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.
- FISSION PRODUCTS - detection in reactor coolants, methods for
 REACTOR FUEL ELEMENTS - failure of water cooled and sodium cooled, methods for detection of
 REACTORS, LIQUID METAL-COOLED - fuel element failures in sodium, methods for detection of
 REACTORS, POWER - fuel element failures in water cooled and sodium cooled, methods for detection of
 REACTORS, WATER-COOLED - fuel element failures in, methods for detection of
- 873 26:55219 (RDT-C--7-18-T(8-72)) THERMOWELL SYSTEMS FOR LIQUID METAL SERVICE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Aug 1972. 22p. RSO.
- REACTORS, LIQUID METAL-COOLED - thermowell system for, standards for design and fabrication of
 STANDARDS - thermowell systems for liquid metal service
 THERMOCOUPLES - thermowell systems for liquid metal service, standards for design and fabrication of
- 874 26:55226 (CONF-710959-- , Paper 5) CLEANUP SYSTEM FOR PRIMARY COVER GAS OF LMFBR. Barulli, L.; Bruzzi, L.; Cicognani, G. (CNEN, Bologna). 15p. From Meeting on fission and corrosion product behaviour in primary systems of LMFBR's; Bensberg, Germany (20 Sep 1971).
- FERMI FAST BREEDER REACTOR - cover gas of, performance of cleanup system for
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER cover gas of, economic feasibility of cleanup system for
- 875 26:55233 (DOCKET-50016--170) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for June 1972. (Power Reactor Development Co., Detroit, Mich.). Jun 1972. 14p. (PRDC-EF--106). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - operations during June 1972
 FERMI FAST BREEDER REACTOR - maintenance during June 1972
 FERMI FAST BREEDER REACTOR - site for, environmental radiation survey during June 1972
- 876 26:55382 (CONF-720901--(Bks.1 and 2), pp 431-41) FFTF PIPE CHASE STREAMING EXPERIMENT. McGregor, B. J.; Muckenthaler, F. J. (Oak Ridge National Lab., Tenn.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- FAST TEST REACTOR - cooling system for, neutron streaming in outlet and inlet pipe chases of, (E)
 TOWER SHIELDING FACILITY - pipe chase mockup in, neutron streaming in sodium filled, (E)
- 877 26:55383 (CONF-720901--(Bks.1 and 2), pp 445-58) STATUS OF THE FTR SHIELDING DESIGN ANALYSIS AND METHODS. Rathbun, J. L.; Fox, P. F. (Westinghouse Electric Corp., Madison, Pa.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- FAST TEST REACTOR - shielding design for, calculation methods for

- 878 26:55387 (CONF-720901--(Bks.1 and 2), pp 645-59) EXPERIMENTAL RESULTS FROM TWO Pu-FUELED FAST CRITICAL ASSEMBLIES. Boehme, R.; Fischer, E. A.; Mc Grath, P. E.; Scholtyssek, W. (Kernforschungszentrum, Karlsruhe, Ger.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - physics measurements on plutonium fueled cores in SNEAK, (E/T)
- 879 26:55388 (CONF-720901--(Bks.1 and 2), pp 660-86) IMPACT OF THE NEW LASL DELAYED NEUTRON DATA ON FTR DESIGN. Ramchandran, S.; Birney, K. R. (Westinghouse Advanced Reactors Div., Madison, Pa.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- FAST TEST REACTOR - physics parameters of, effects of delayed neutron data variations on
- 880 26:55390 (CONF-720901--(Bks.1 and 2), pp 739-67) ANALYSIS OF SODIUM-VOID EXPERIMENTS IN THE FTR ENGINEERING MOCKUP CRITICAL ASSEMBLY. Travelli, A.; Beitel, J. C. (Argonne National Lab., Ill.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- FAST TEST REACTOR - reactivity coefficients in, mockup measurements of sodium-void, (E/T)
- 881 26:55391 (CONF-720901--(Bks.1 and 2), pp 839-87) FTR NEUTRONICS: STATUS, PROBLEMS, AND DEVELOPMENT PROGRAMS. Hofmann, P. L. (Hanford Engineering Development Lab., Richland, Wash.). 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- FAST TEST REACTOR - physics parameters of, review of programs for determination of
- 882 26:55392 (CONF-720901--(Bks.1 and 2), pp 973-85) SODIUM VOID STUDIES AND RELATED HETEROGENEITY EFFECTS IN ZPPR-2, THE BENCHMARK DEMONSTRATION ASSEMBLY. Palmer, R. G.; Davey, W. G.; Collins, P. J.; Amundson, P. I.; Kaiser, R. E.; Beck, C. L. 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.
- CRITICAL ASSEMBLIES - reactivity worth measurements in ZPPR-2, heterogeneity effects in sodium void
- 883 26:55394 (CONF-720901--3) FFTF PIPE CHASE STREAMING EXPERIMENT. McGregor, B. J.; Muckenthaler, F. J. (Oak Ridge National Lab., Tenn.). 1972. 12p. Dep. NTIS. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972).
- FAST FLUX TEST FACILITY - pipe chases in, neutron streaming in sodium filled, (E/T)
TOWER SHIELDING FACILITY - pipe chase mockup in, neutron streaming in sodium filled, (E/T)
- 884 26:55395 (CONF-720901--12) SUMMARY OF ANALYSES OF PLATE VS. PIN MEASUREMENTS EMPHASIZING REACTIVITY AND SODIUM VOID EFFECTS. Pitterle, T. A.; Paik, N. C. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). 1972. Contract AT(11-1)-3045. 31p. Dep. NTIS. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972).
- CRITICAL ASSEMBLIES - physics measurements in ZPPR-2 and ZPR-6-7, comparison for fuel plates vs. fuel pins of
REACTIVITY - measurements in sodium of fuel plates vs. fuel pins, comparison of
REACTOR FUEL ELEMENTS - physics measurements of plate vs. pin, comparison of
REACTORS, LIQUID METAL-COOLED - coolant voids in, effects on core physics of sodium
- 885 26:55396 (EURFNR--1014) CALCULATION OF HETEROGENEOUS FLUXES, REACTION RATES, AND REACTIVITY WORTHS IN THE PLATE STRUCTURE OF ZERO POWER FAST CRITICAL ASSEMBLIES. McGrath,

P. E.; Fischer, E. A. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Angewandte Reaktorphysik). Mar 1972. 64p. (KFK--1557). Dep. NTIS (U. S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.

COMPUTER PROGRAMS - KAPER, for core physics analysis in critical assemblies
 CRITICAL ASSEMBLIES - core physics in, KAPER code for calculation of
 CRITICAL ASSEMBLIES - core physics analysis in SNEAK, evaluation of KAPER code for

- 886 26:55398 (EURFNR--1029) PHYSICS INVESTIGATIONS OF SODIUM COOLED FAST REACTORS SNEAK-ASSEMBLIES 6A/6B. Jourdan, G.; Plum, F.; Reichel, H. (Kernforschungszentrum, Karlsruhe (West Germany)). Jun 1972. 99p. (KFK--1612). Dep. NTIS (U. S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.

CRITICAL ASSEMBLIES - physics measurements for SNEAK 6A, 6B, and 6D, (E/T)
 REACTORS, FAST - physics measurements for liquid sodium cooled, (E/T)
 REACTORS, LIQUID METAL-COOLED - physics measurements for fast, (E/T)

- 887 26:55401 (JAERI-Memo--3891) CRITICAL EXPERIMENTS ON FCA I-6. Nakano, Masafumi; Hiraoka, Toru; Nakamura, Tomoo (Japan Atomic Energy Research Inst., Tokyo). Jan 1970. (In Japanese). NTIS (U. S. Sales Only).

CRITICAL ASSEMBLIES - critical parameters of enriched uranium fueled graphite reflected cores in FCA, (E)

- 888 26:55403 (JAERI-Memo--4004) SEMI-EXPERIMENTAL MEASUREMENT OF EFFECTIVE DELAYED NEUTRON FRACTION OF A FAST REACTOR SYSTEM BY APPLICATION OF PULSED NEUTRON TECHNIQUE. Hiraoka, Toru; Nakano, Masafumi; Konishi, Toshio (Japan Atomic Energy Research Inst., Tokyo). Apr 1970. (In Japanese). NTIS (U. S. Sales Only).

CRITICAL ASSEMBLIES - physics measurements in FCA, pulsed neutron techniques for effective delayed neutron fraction
 NEUTRONS, DELAYED - fraction measurements in FCA, use of pulsed neutron technique and eigenvalue calculations for effective

- 889 26:55405 (JAPFNR--43) PRELIMINARY CONCEPTUAL DESIGN OF JOYO MK-II IRRADIATION APPARATUS. (Tokyo Shibaura Electric Co. Ltd., Kawasaki, Kanagawa Prefecture (Japan)). Translation of report PNC-N--141-72-1-13. 12p. Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokyo (Japan).

JAPANESE EXPERIMENTAL FAST REACTOR - experimental facilities in, conceptual design of

- 890 26:55417 (CONF-710959) SPECIALISTS' MEETING ON 'FISSION AND CORROSION PRODUCT BEHAVIOUR IN PRIMARY SYSTEMS OF LMFBR'S,' SEPTEMBER 20--22, 1971, BENSBERG/ FRG. Summary Report. (International Atomic Energy Agency, Vienna (Austria)). 1971. 232p.

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems of, conference on corrosion products in

- 891 26:55437 (CONF-720901--(Bks.1 and 2), pp 713-23) VERIFICATION OF A NEW METHOD FOR CALCULATING AND MEASURING GENERATION TIME IN A SUBCRITICAL FAST REACTOR. Buhl, A. R. (Oak Ridge National Lab., Tenn.); Robinson, J. C. 1972. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY. (12 Sep 1972). In National topical meeting on new developments in reactor physics and shielding.

FAST TEST REACTOR - neutron generation time in subcritical, transfer and scattering kinetics scheme for determination of
 NEUTRONS - generation time in subcritical fast reactors, transfer and scattering kinetics scheme for determination of
 REACTORS, FAST - neutron generation time in subcritical, transfer and scattering kinetics scheme for determination of

- 892 26:55448 IMPROVED COMPUTER METHOD FOR POLARITY CROSS CORRELATION. Cohn, C. E. (Argonne National Lab., Ill.). Nucl. Instrum. Methods; 103: No. 2, 257-9(1972).

CRITICAL ASSEMBLIES - correlation function from noise analysis of ZPR-9
DATA PROCESSING SYSTEMS - description of computer-based, for polarity-correlation noise analysis

- 893 26:55943 (ANL--7931) CHEMICAL ENGINEERING DIVISION, FUEL CYCLE TECHNOLOGY QUARTERLY REPORT, JANUARY--MARCH 1972. Webster, D. S.; Jonke, A. A.; Bernstein, G. J.; Levitz, N. M.; Miller, W. E.; Steindler, M. J.; Vogel, R. C. (Argonne National Lab., Ill.). Aug 1972. Contract W-31-109-Eng-38. 89p. Dep. NTIS.
- CALCIUM CHLORIDES; CALCIUM OXIDES - CaCl_2 -- CaO , phase studies on
FISSION PRODUCTS - release of gaseous, from power reactors
LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, research progress on
PLUTONIUM - separation from spent fuel elements after pyrochemical decladding, evaluation of distillation and precipitation methods for
PLUTONIUM - determination in mixed oxide fuels, x-ray fluorescence method for in-line
PLUTONIUM - reduction in Purex Process, electrolytic
PLUTONIUM NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, denitration in fluidized bed, continuous oxide production by
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_3 , production by continuous denitration of uranyl and plutonium nitrates in fluidized bed
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , analysis for plutonium and uranium, x-ray fluorescence method for in-line
PUREX PROCESS - plutonium reduction in
RADIOACTIVE WASTE - processing of salt, from pyrochemical head-end process in fuel reprocessing for recycle
RARE GASES - production and release in power reactors
REACTOR FUEL ELEMENTS - reprocessing of, pyrochemical processes in head-end
REACTOR FUELS - reprocessing of LMFBR, research progress on
REACTORS, POWER - radioactive waste from, release of gaseous tritium and rare gas
STAINLESS STEEL - solubility in liquid zinc
THORIUM - determination in mixed oxide fuels, x-ray fluorescence method for in-line
THORIUM OXIDES ThO_2 - ThO_2 -- UO_2 , analysis for thorium and uranium, x-ray fluorescence method for in-line
TRITIUM - production and release in power reactors
URANIUM - separation from spent fuel elements after pyrochemical decladding, evaluation of distillation and precipitation methods for
URANIUM - determination in mixed oxide fuels, x-ray fluorescence method for in-line
URANIUM OXIDES UO_2 - ThO_2 -- UO_2 , analysis for thorium and uranium, x-ray fluorescence method for in-line
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , analysis for plutonium and uranium, x-ray fluorescence method for in-line
URANIUM OXIDES UO_3 - PuO_2 -- UO_3 , production by continuous denitration of uranyl and plutonium nitrates in fluidized bed
URANYL NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, denitration in fluidized bed, continuous oxide production by
VESSELS - performance of centrifugal contactor, in LMFBR fuel processing
ZINC - solvent properties of liquid, for stainless steel
- 894 26:56017 VISCOSEALS FOR SODIUM PUMPS. Bussemaker, E. J. (Koninklijke Machinefabriek Stork N.V., Hengelo, Netherlands); Hirs, G. G. Polytech. Tijdschr., Procestech.; 27: No. 16, 524-9(2 Aug 1972). (In Dutch).
- PUMPS (LIQUID METAL) - shaft seals for sodium, design and testing of viscoseal-type
SEALS AND GLANDS - design and testing of viscoseal-type, for sodium pumps
- 895 26:56031 (JAPFNR--26) SODIUM COMPONENTS AND MATERIALS TESTING FACILITIES. Revised. (Power Reactor and Nuclear Fuel Development Corp., Oarai (Japan). Oarai Engineering Center). Translation of a Japanese report. 29p. (PNC-N--241-71-18). Dep. NTIS (U. S. Sales Only).
- HEAT TRANSFER SYSTEMS - description of sodium, for corrosion testing of reactor materials
REACTORS, LIQUID METAL-COOLED - materials for sodium, test facility for
- 896 26:56578 (BMI--1925) PROGRESS ON DEVELOPMENT OF FUELS AND TECHNOLOGY FOR ADVANCED REACTORS DURING JULY 1971 THROUGH JUNE 1972. Final Report, Task 6 and Task 7. Annual Report, In-Reactor Creep Program. Keller, Donald L. (Battelle Columbus Labs., Ohio). 30 Jun 1972. Contract W-7405-eng-92. 201p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuels for, development and testing of
REACTOR FUELS - development and testing of, research progress on

- 897 26:56579 (BMI--1925, Sect.A) URANIUM--PLUTONIUM NITRIDE FUELS FOR LMFBR APPLICATIONS. 30 Jun 1972. 56p. In Progress on development of fuels and technology for advanced reactors during July 1971 through June 1972.
- EXPERIMENTAL BREEDER REACTOR-II - fuel pin assembly for, quality control in fabrication of
EXPERIMENTAL BREEDER REACTOR-II - fuel pin assembly for, in-pile surveillance and safety analysis for
PLUTONIUM URANIUM NITRIDES - preparation of fuel pellets of, for irradiation in EBR-II
PLUTONIUM URANIUM NITRIDES - radiation effects on clad fuel pins of, at high burnups in EBR-II
PLUTONIUM URANIUM NITRIDES - radiation effects on, TREAT studies on
REACTOR SAFETY EXPERIMENTS - fuel element irradiation in TREAT, analysis of stainless steel-clad plutonium uranium nitride
- 898 26:56595 (JAPFNR--33) FABRICATION PROGRAM OF JOYO FUELS. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translation of a Japanese report. 32p. (PNC-N--141-72-1-3). Dep. NTIS (U. S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel elements for Joyo, fabrication program for
- 899 26:56644 (ORNL-TM--3972) RESULTS OF CORROSION EXPERIMENTS ASSOCIATED WITH SPENT LMFBR FUEL PROCESSING. Creek, G. E.; Griess, J. C. (Oak Ridge National Lab., Tenn.). Oct 1972. Contract W-7405-eng-26. 26p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, corrosive effects of nitric acid dissolver solutions on containment materials during
NITRIC ACID - corrosive effects of halogen- and nitrate-containing, on LMFBR fuel reprocessing container materials
TANTALUM; TITANIUM; ZIRCALOY-2 - corrosion by LMFBR fuel reprocessing dissolver solutions
- 900 26:56654 (JAPFNR--34) FABRICATION ON "JOYO" BLANKET FUEL ASSEMBLIES. (Sumitomo Electric Industries, Ltd., Osaka (Japan)). Translation of a Japanese report. 7p. (PNC-N--141-72-1-4). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel assemblies for Joyo, method and schedule for fabrication of
- 901 26:56674 (BMI--1928) PROGRESS ON LMFBR CLADDING, STRUCTURAL, AND COMPONENT MATERIALS STUDIES DURING JULY 1971 THROUGH JUNE 1972. Final Report, Task 32. Keller, Donald L. (Battelle Columbus Labs., Ohio). Jul 1972. Contract W-7405-eng-92. 70p. Dep. NTIS.
- INCOLOY 800 - fatigue properties of, at 800 to 1400°F
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, development and testing of cladding for
STAINLESS STEEL - fatigue properties of Types 304 and 316, at 70 to 1200°F, low-cycle
- 902 26:56683 (JAPFNR--35) CREEP AND CREEP-RUPTURE TESTS ON FUEL CLADDING TUBES OF 2nd TEST FABRICATION FOR JOYO. (Kobe Steel Ltd. (Japan)). Translation of a Japanese report. 10p. (PNC-N--141-72-1-5). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel element cladding for Joyo, creep-rupture testing of Type 316 stainless steel
STAINLESS STEEL - creep rupture of fuel cladding of Type 316
- 903 26:56684 (JAPFNR--36) ELEVATED TEMPERATURE FATIGUE TESTS ON CLADDING MATERIAL FOR FAST BREEDER REACTOR FUEL. (Mitsubishi Atomic Power Industries, Inc., Omiya (Japan)). Translation of a Japanese report. 24p. (PNC-N--141-72-1-6). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corporation, Tokai (Japan).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel element cladding for Joyo, fatigue testing of Type 316 stainless steel
STAINLESS STEEL - fatigue testing of Type 316, above 600°C, for Joyo fuel cladding

- 904 26:56685 (JAPFNR--37) THERMAL RATCHET TEST ON CLADDING MATERIAL FOR FAST BREEDER REACTOR FUEL. (Mitsubishi Atomic Power Industries, Inc., Omiya (Japan)). Translation of a Japanese report. 15p. (PNC-N--141-72-1-7). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corporation, Tokai (Japan).
- LIQUID METAL FAST BREEDER REACTOR - fuel element cladding for, thermal ratchetting of Type 316 stainless steel
STAINLESS STEEL - thermal ratchetting of fuel cladding of Type 316, at 700°C
- 905 26:56686 (JAPFNR--48) TEST RESULTS OF CLAD TUBES EXCHANGED BETWEEN U.S. AND JAPAN. (Kobe Steel Ltd. (Japan)). Translation of a Japanese report. 24p. (PNC-N--141-72-1-19). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokyo (Japan).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel cladding for, testing of Type 316 stainless steel
STAINLESS STEEL - testing of fuel cladding tubes of Type 316, for Joyo reactor
- 906 26:56690 (ORNL-TM--3602) CURRENTLY RECOMMENDED CONSTITUTIVE EQUATIONS FOR INELASTIC DESIGN ANALYSIS OF FFTF COMPONENTS. Pugh, C. E.; Liu, K. C.; Corum, J. M.; Greenstreet, W. L. (Oak Ridge National Lab., Tenn.). Sep 1972. Contract W-7405-eng-26. 114p. Dep. NTIS.
- FAST FLUX TEST FACILITY - component design for, constitutive equations for inelastic analysis of materials for
STAINLESS STEEL - creep and elastic--plastic properties of Types 304 and 316, constitutive equations for description of
- 907 26:56741 (JAPFNR--38) IRRADIATION PROGRAM IN PNC. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translation of a Japanese report. 10p. (PNC-N--141-72-1-8). Dep. NTIS (U. S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuels and materials for Joyo, radiation effects testing program for
REACTOR FUELS - radiation effects testing of Japanese, long-term plans for
REACTORS, BREEDER - fuels and materials for Japanese prototype Monju, radiation effects testing program for
- 908 26:56747 (TID--26147) DESIGN RAMIFICATIONS OF IRRADIATION-INDUCED SWELLING AND CREEP IN FAST REACTORS. Murray, P.; Patterson, J. F.; Pennell, W. E. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). 1971. Contract AT(30-1)-3791. 69p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - core components for, effects of radioinduced creep and swelling of materials on design of
NEUTRONS, FAST - effects on Types 304 and 316 stainless steel cladding and structural materials
REACTOR FUEL ELEMENTS - design of clad pin-type, relation of radioinduced creep and swelling behavior to
STAINLESS STEEL - radiation effects on cladding and structural materials of Types 304 and 316, fast neutron
- 909 26:58013 (CONF-720627-- , pp 5.20-6) SOME COMMENTS ON THE FUTURE OF THE FAST BREEDER REACTOR. Alder, K. F. (Australian Atomic Energy Commission, Sydney). From Symposium on the role of nuclear energy in Australia's development; Canberra, Australia (1 Jun 1972).
- REACTORS, BREEDER - developments in fast, discussion of future
REACTORS, FAST - developments in breeder, discussion of future
REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - discussion of fast breeder, developments of future
- 910 26:58014 (JAPFNR--29) OUTLINE OF THE JAPAN EXPERIMENTAL FAST REACTOR 'JOYO'. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translated from report PNC-N--241-72-15. 28p. Dep. NTIS (U. S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR - development of, history of

JAPANESE EXPERIMENTAL FAST REACTOR - design parameters of
 JAPANESE EXPERIMENTAL FAST REACTOR - description of, detailed

- 911 26:58015 (JAPFNR--50) PROGRESS AND PRESENT STATUS OF FBR DEVELOPMENT IN JAPAN. (Power Reactor and Nuclear Development Corp., Tokyo (Japan)). Translation of report PNC-N--141-72-1-21. 8p. Dep. NTIS (U. S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR; JAPANESE PROTOTYPE FAST BREEDER REACTOR - development of, status of
 REACTORS, BREEDER; REACTORS, FAST - development in Japan, status of
 REACTORS, LIQUID METAL-COOLED - development in Japan of fast breeder, status of
- 912 26:58016 (JAPFNR--51) PRESENT STATUS OF LMFBR DEVELOPMENT PROGRAM AT PNC, JAPAN. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translation of report PNC-N--141-72-1-22. 4p. Dep. NTIS (U. S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR; JAPANESE PROTOTYPE FAST BREEDER REACTOR - development of, status of
 REACTORS, BREEDER; REACTORS, FAST - development in Japan, status of
 REACTORS, LIQUID METAL-COOLED - development in Japan of fast breeder, status of
- 913 26:58024 FRENCH FAST BREEDERS. Vendryes, G.; Carle, R. Combustion; 43: No. 12, 44-6(Jun 1972).
- CADARACHE REACTORS (RAPSDIE) - operation of
 FRANCE - fast breeder reactor program in
 PHENIX FAST REACTOR - construction of
- 914 26:58026 STATUS REPORT: U. S. LMFBR PROGRAM. Behnke, Wallace B.; Shaw, Milton; Watson, James E. (Commonwealth Edison Co., Chicago. Atomic Energy Commission, Washington, D. C. Tennessee Valley Authority, Chattanooga). Combustion; 43: No. 12, 22-4; 29-36(Jun 1972).
- LIQUID METAL FAST BREEDER REACTOR - development of, status of
- 915 26:58033 (JAPFNR--47) SURVEY STUDY OF JOYO MARK-II CORE. (Sumitomo Electric Industries, Ltd., Osaka (Japan). Mitsubishi Atomic Power Industries, Inc., Omiya (Japan)). Translation of report PNC-N--141-72-1-18. 3p. Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan).
- JAPANESE EXPERIMENTAL FAST REACTOR - core for, preliminary design of
 JAPANESE EXPERIMENTAL FAST REACTOR - fuel elements for, preliminary design of
- 916 26:58034 (JAPFNR--56) EXPERIMENTS FOR THE JOYO CORE COMPONENTS THERMAL BOWING ANALYSIS. [PART] II. Kumaoka, Yoshio; Kawada, Toshiyuki (Tokyo Shibaura Electric Co. Ltd., Kawasaki, Kanagawa Prefecture (Japan)). Translation of a Japanese report. 92p. (PNC-SJ--201-71-26). Dep. NTIS (U. S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR - core of, thermal bowing of structural components in
 JAPANESE EXPERIMENTAL FAST REACTOR - fuel elements of, thermal bowing of
- 917 26:58035 (RT/FIMA--(72)2) STATUS REPORT ON THE STATIC AND BURNUP 3-D CODE FOR THE ITALIAN FAST REACTOR DESIGN CALCULATIONS. Mango, L. (Comitato Nazionale per l'Energia Nucleare, Rome (Italy)). 5 May 1972. 155p. Dep. NTIS (U. S. Sales Only).
- COMPUTER PROGRAMS - CITATION, for burnup in PEC Fast Reactor, FORTRAN for IBM-360
 PEC FAST TEST REACTOR - fuel burnup calculations for, modifications of CITATION Code for
- 918 26:58039 METHOD OF CORE THERMAL CALCULATION FOR MULTICHANNEL ON SODIUM-COOLED FBR. Miyamoto, Yoshiaki (Japan Atomic Energy Research Inst., Tokai). J. Nucl. Sci. Technol. (Tokyo); 9: No. 3, 186-8(Mar 1972).

JAPANESE EXPERIMENTAL FAST REACTOR - thermal calculations for
 REACTORS, BREEDER - thermal calculations for sodium-cooled fast
 REACTORS, FAST - thermal calculations for sodium-cooled breeder
 REACTORS, LIQUID METAL-COOLED - thermal calculations for sodium-cooled FBR

- 919 26:58041 HEAT TRANSFER PROBLEMS AT SODIUM-COOLED FAST BREEDING REACTORS. Schultheiss, G. F. Energ. Atomtech.; 24: No. 4, 180-2(Apr 1972). (In Hungarian).

REACTORS, BREEDER - heat transfer problems in sodium-cooled fast, survey of
 REACTORS, FAST - heat transfer problems in sodium-cooled breeder, survey of
 REACTORS, LIQUID METAL-COOLED - heat transfer problems in sodium-cooled fast breeder,
 survey of

- 920 26:58042 (EURFNR--1033) CONTROL ROD EXPERIMENTS IN SNEAK-ASSEMBLY 6. Pilate, S.; Plum, F. (comps.) (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Angewandte Systemtechnik und Reaktorphysik). Jul 1972. 79p. (KFK--1633). Dep. NTIS (U. S. Sales Only). Work Performed under United States--Euratom Fast Reactor Exchange Program.

ALUMINUM - evaluation as fast reactor control material
 BORON CARBIDES - evaluation as fast reactor control material of B₄C
 CRITICAL ASSEMBLIES - control rod material studies in SNEAK-6, summary of February to September 1970
 REACTOR CONTROL ELEMENTS - evaluation of materials for fast, summary of February to September 1970 experiments in SNEAK-6 for
 SODIUM; STEEL; TANTALUM - evaluation as fast reactor control material
 SNR REACTOR - control rods for, evaluation of materials for

- 921 26:58048 (JAPFNR--40) SODIUM FLOW TEST RESULTS FOR A SIMULATED CORE FUEL SUBASSEMBLY OF THE EXPERIMENTAL FAST BREEDER REACTOR 'JOYO'. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translation of report PNC-N--141-72-1-10. 11p. Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - coolant flow in, simulated tests of sodium
 SODIUM - flow through complex fuel pin arrangement of liquid, tests of simulated

- 922 26:58049 (JAPFNR--42) SODIUM BOILING TEST LOOP AND TEST RESULTS. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translated from report PNC-N--141-72-1-12. 5p. Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - cooling system of, mockup studies of sodium boiling in
 SODIUM - boiling in reactor channels, equipment for mockup studies of

- 923 26:58050 (JAPFNR--46) PRELIMINARY DESIGN FOR INPILE LOOP IN 'JOYO' MK-II. (Mitsubishi Atomic Power Industries, Inc., Omiya (Japan)). Translation of report PNC-N--141-72-1-17. 5p. Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan).

IN-PILE LOOPS - design for fast reactors, preliminary
 JAPANESE EXPERIMENTAL FAST REACTOR - inpile loop for, description of preliminary design for

- 924 26:58051 (JAPFNR--49) DEVELOPMENT OF COMPONENTS AND SODIUM TECHNOLOGY. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translation of report PNC-N--141-72-1-20. 7p. Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - cooling system of, problems of corrosion in liquid sodium
 JAPANESE EXPERIMENTAL FAST REACTOR - cooling system of, schedule of component development for

- 925 26:58057 (EURFNR--968, pp 74-80) COMPUTER PROGRAMS CANNING AND CRASH. Closs, K. D.

COMPUTER PROGRAMS - CANNING, for creep deformation in liquid metal cooled fast reactor

fuel rod cladding
 COMPUTER PROGRAMS - CRASH, for stresses in liquid metal cooled fast reactor fuel rod cladding
 REACTOR FUEL ELEMENTS - cladding for fast liquid metal cooled, computer programs for calculation of stresses and creep deformation in
 REACTORS, FAST - fuel element cladding for liquid metal cooled, computer programs for calculation of stresses and creep deformation in
 REACTORS, LIQUID METAL-COOLED - fuel element cladding for fast, computer programs for calculation of stresses and creep deformation in

- 926 26:58059 (JAPFNR--31) FUEL DESIGN OF JOYO. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translated from report PNC-N--141-72-1-1. 5p. Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - fuel elements for, summary of design parameters and criteria for

- 927 26:58061 (JAPFNR--58) INTERNAL PRESSURE FATIGUE TEST ON FUEL CLADDING FOR EXPERIMENTAL FAST REACTOR JOYO. Iizuka, T.; Kusumoto, A.; Maki, H.; Hara, T.; Sato, M. (Hitachi, Ltd., Tokyo (Japan)). Translation of a Japanese report. 67p. (PNC-J--202-71-10). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan).

JAPANESE EXPERIMENTAL FAST REACTOR - fuel element cladding for, internal pressure fatigue testing of
 REACTOR FUEL ELEMENTS - fatigue testing of cladding of, pressure cycling with constant or varying temperatures

- 928 26:58066 EXPERIMENTAL INVESTIGATION OF FUEL ELEMENT STRESS BY A BOILING TECHNIQUE. Cramer, M.; Dorr, B. (Nuclear Research Center, Karlsruhe, Ger.). KFK Nachr.; 3: No. 2, 17-21(1971). (In German).

REACTOR FUEL ELEMENTS - stresses in liquid metal cooled rods, effects of sodium boiling on, (E)
 REACTORS, LIQUID METAL-COOLED - fuel elements for, effects of sodium boiling on stresses in, (E)

- 929 26:58068 DEVELOPMENT OF SODIUM MACHINERY AND EQUIPMENT AND TESTING APPARATUS FOR FAST-BREEDER REACTOR. Ogushi, Kozo; Hayakawa, Shigeru (Fuji Electric Co. Ltd., Tokyo). FAPIG (Tokyo); No. 62, 90-4; 104(Aug 1971). (In Japanese).

REACTORS, BREEDER - components testing in sodium loops for fast
 REACTORS, FAST - components testing in Fuji sodium loops for FBR
 REACTORS, LIQUID METAL-COOLED - components testing in sodium loops for fast breeder

- 930 26:58078 (ORO--4313-1(Rev.)) FUEL COOLANT INTERACTION IN LMFBR ACCIDENT ANALYSIS. First Quarterly Progress Report for the Period December 15, 1971--March 14, 1972. (Virginia Univ., Charlottesville. Research Labs. for the Engineering Sciences). Mar 1972. Contract AT(40-1)-4313. 41p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - meltdown accidents in, performance of ANL-FCI, SOCOOL-2, and MFCDYN computer codes for analysis of fuel--coolant interactions during
 REACTORS, BREEDER; REACTORS, FAST - meltdown accidents in liquid metal cooled, performance of ANL-FCI, SOCOOL-2, and MFCDYN computer codes for analysis of fuel--coolant interactions during
 REACTORS, LIQUID METAL-COOLED - meltdown accidents in, performance of ANL-FCI, SOCOOL-2, and MFCDYN computer codes for analysis of fuel--coolant interactions during

- 931 26:58082 STUDIES AT KARLSRUHE ABOUT THE SAFETY OF THE SNR. Dmify, F. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt. Atomtech.; 17: No. 7, 375-8(Jul 1972). (In German).

REACTORS, LIQUID METAL-COOLED - safety of fast, effects of core cooling disturbances on
 SNR REACTOR - safety of, effects of core cooling disturbances on

- 932 26:58087 (JAPFNR--53) FLOW DISTRIBUTION ANALYSIS OF ENTRANCE NOZZLE ORIFICE HOLES FOR "JOYO" CORE FUEL SUBASSEMBLY. Masuda, Seizo; Itoh, Arata; Ikeda, Kiyoshi (Tokyo Shibaura Electric Co. Ltd., Kawasaki, Kanagawa Prefecture (Japan)). Translation of a Japanese report. 44p. (PNC-J--201-71-18). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel assemblies of, effects of entrance orifice holes on coolant flow distribution in
JAPANESE EXPERIMENTAL FAST REACTOR - core of, coolant flow analysis in
- 933 26:58097 KALKAR SNR: A DeBeNeLUX DESIGN FOR A 300-MWe FAST SODIUM REACTOR. Com. Naz. Energ. Nucl., Notiz.; 18: No. 6, 55-61(Jun 1972). (In Italian).
- NUCLEAR POWER PLANTS - tabulation of German
SNR REACTOR - description of
- 934 26:58192 (DOCKET-50231--124) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Proposed Changes. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 14 Sep 1972. 2p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - technical specifications for, proposed revisions in
- 935 26:58193 (DOCKET-50231--125) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change 14. (Directorate of Licensing (AEC), Washington, D. C.). 3 Oct 1972. 2p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - decommissioning of, surveillance specifications for
- 936 26:58305 (ORNL-NSIC--91) SAFETY-RELATED OCCURRENCES IN NUCLEAR FACILITIES AS REPORTED IN 1970. Scott, R. L. (Oak Ridge National Lab., Tenn.). Dec 1971. Contract W-7405-eng-26. 143p. Dep. NTIS.
- BIBLIOGRAPHIES - on nuclear and reactor safety in 1970
FISSIONABLE MATERIAL - handling and transport, bibliography of safety related occurrences in 1970 in
RADIATION SOURCES - safety related occurrences in 1971, bibliography of
RADIOACTIVE WASTE - handling and transport, bibliography of safety related occurrences in 1970 in
REACTOR SAFETY - related occurrences, bibliography in 1970
REACTORS, BOILING; REACTORS, GAS-COOLED; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER REACTORS, PRESSURIZED-WATER; REACTORS, RESEARCH; REACTORS, TEST - safety related occurrences in 1971, bibliography of
SAFETY - related occurrences, bibliography in 1970
- 937 26:58306 (ORNL-NSIC--106) SAFETY-RELATED OCCURRENCES IN NUCLEAR FACILITIES AS REPORTED IN 1971. Scott, R. L.; Gallaher, R. B. (Oak Ridge National Lab., Tenn.). Sep 1972. Contract W-7405-eng-26. 177p. Dep. NTIS.
- BIBLIOGRAPHIES - on nuclear and reactor safety in 1971
FISSIONABLE MATERIAL - handling and transport, bibliography of safety related occurrences in 1971 on
RADIATION SOURCES - safety related occurrences in 1971, bibliography of
RADIOACTIVE WASTE - handling and transport, bibliography of safety related occurrences in 1971 on
REACTOR SAFETY - related occurrences, bibliography in 1971
REACTORS, BOILING; REACTORS, GAS-COOLED; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER REACTORS, PRESSURIZED-WATER; REACTORS, RESEARCH; REACTORS, TEST - safety related occurrences in 1971, bibliography of
SAFETY - related occurrences, bibliography in 1971
- 938 26:58316 SAFETY CONCEPT AND RESPECTIVE CONSTRUCTION CHARACTERISTICS OF THE SNR 300. Brandstetter, A.; Huebel, H. (INTERATOM, Bensberg, Ger.). Atomwirt. Atomtech.; 17: No. 7, 371-4(Jul 1972). (In German).

SNR REACTOR - safety aspects of
 SNR REACTOR - construction characteristics of

- 939 26:58321 STEAM GENERATORS FOR LIQUID METAL COOLED FAST REACTORS. Bennett, J. C. (Clarke Chapman-John Thompson, London). Nucl. Eng. Int.; 17: No. 194, 548-50(Jul 1972).
- BOILERS - design for liquid metal-cooled fast reactors
 REACTORS, FAST - steam generators for liquid metal-cooled, design of
 REACTORS, LIQUID METAL-COOLED - steam generators for fast, design of
 REACTORS, POWER - steam generators for liquid metal cooled fast, design of
- 940 26:58330 COMPONENT AND OVERALL PERFORMANCE OF AN ADVANCED RANKINE CYCLE TEST RIG. Bond, J. A. (General Electric Co., Idaho Falls, Idaho); Gutstein, M. U. pp 464-71 of 1971 Intersociety Energy Conversion Engineering Conference. New York; Society of Automotive Engineers, Inc. (1971). From 6. intersociety energy conversion engineering conference; Boston, MA. (3 Aug 1971). See CONF-710803.
- NUCLEAR AUXILIARY POWER SYSTEMS - performance of liquid metal cooled space power reactor, with Rankine cycle power conversion system
 REACTORS, LIQUID METAL-COOLED - performance of space power, with Rankine cycle power conversion system
 REACTORS, POWER - performance of liquid metal cooled space, with Rankine cycle power conversion system
- 941 26:58388 (INIS-mf--206) EXPERIMENTAL STUDIES OF EFFECTIVE CROSS SECTIONS, REACTION RATE DISTRIBUTIONS, AND NEUTRON SPECTRA IN SOME FAST REACTOR CORES. Andersson, Tor Leif (Lund Univ. (Sweden)). 1971. 18p. INIS.
- CRITICAL ASSEMBLIES - measurements on fast cores in FRO
 FISSION PRODUCTS - reactivity worths in fast reactor spectra
 NEUTRONS - flux distributions and spectra in fast cores
 NEUTRONS - capture-to-fission ratio in fast cores
 PLUTONIUM ISOTOPES Pu-239 - neutron capture-to-fission ratio in fast cores
 URANIUM ISOTOPES U-235 - neutron capture-to-fission ratio in fast FRO cores
- 942 26:58726 ALTERNATING CURRENT, SINGLE PHASE MAGNETOHYDRODYNAMIC CONDUCTION PUMP. Flores, F. (Junta de Energia Nucleare, Madrid). An. Fis.; 67: No. 7-8, 273-90 (1971). (In Spanish).
- ELECTROMAGNETIC PUMPS - design of alternating current single-phase, for MHD working fluids, calculations for
 MAGNETOHYDRODYNAMIC GENERATORS - pumps for, calculations for design of alternating current single-phase electromagnetic
- 943 26:58731 COMPUTER-SUPPORTED DESIGN OF HEAT EXCHANGERS. Schnauder, H. KFK Nachr.; 4: No. 2, 14-19 (1972). (In German).
- COMPUTER PROGRAMS - SINEX, for computing optimal design parameters for sodium--sodium intermediate heat exchangers for fast breeder reactors
 HEAT EXCHANGERS - design of sodium--sodium intermediate, for fast breeder reactors, development of SINEX computer program for calculating optimal parameters for
 REACTORS, BREEDER - heat exchangers for sodium-cooled fast, SINEX computer program for computing optimal design parameters for intermediate
- 944 26:59218 METHOD OF VIBRATORY LOADING NUCLEAR FUEL ELEMENTS. Sease, John D.; Harrington, Francis E. (to United States Atomic Energy Commission). U. S. Patent 3,683,975. 15 Aug 1972. Filed 12 Feb 1971.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, vibratory loading method for fabrication of pellet-type
 PLUTONIUM OXIDES PuO₂; URANIUM OXIDES UO₂ - PuO₂--UO₂, fabrication of pellet-type fuel elements of, containing uranium-238 oxide pellets, vibratory loading method for
- 945 26:59257 (ORNL-TM--3917) HIGH-TEMPERATURE STRUCTURAL DESIGN METHODS FOR LMFBR

COMPONENTS. Quarterly Progress Report for Period Ending June 30, 1972. Greenstreet, W. L.; Corum, J. M.; Pugh, C. E. (Oak Ridge National Lab., Tenn.). Sep 1972. Contract W-7405-eng-26. 145p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - materials for, interlaboratory research programs on Type 304 stainless steel
STAINLESS STEEL - properties of Type 304, for use in LMFBR components, interlaboratory research programs on

- 946 26:60521 (AI-AEC--13034) LMFBR PHYSICS PROGRAMS. Annual Technical Progress Report, Government Fiscal Year 1972. (Atomics International, Canoga Park, Calif.). 15 Aug 1972. Contract AT(04-3)-824. 116p. Dep. NTIS.

BORON CARBIDES - reactivity worth in fast reactor control rod mockups, (E/T)
CRITICAL ASSEMBLIES - physics parameters of ZPR-3, ZPR-6, and ZPPR-2 benchmark cores, (E/T)
CRITICAL ASSEMBLIES - cores for FCEL, configuration and reactivity worth measurements in
CRITICAL ASSEMBLIES - neutron spectra in FCEL cores 20 and 20N, (E/T)
CRITICAL ASSEMBLIES - neutron fission ratios in FCEL cores 20 and 20N, (E/T)
CRITICAL ASSEMBLIES - neutron importance distribution in FCEL core 20, measurements of axial fission, (E/T)
CRITICAL ASSEMBLIES - control rod mockups in FCEL cores 20 and 20N, reactivity worths of boron carbide and tantalum, (E/T)
CRITICAL ASSEMBLIES - neutron flux distributions in FCEL cores 20 and 20N, (T)
CRITICAL ASSEMBLIES - Doppler reactivity effect measurements in ZPPR-2, DOPFIT-II code analysis of
LIQUID METAL FAST BREEDER REACTOR - physics measurements for, summary of fiscal year 1972
LIQUID METAL FAST BREEDER REACTOR - control rods for, reactivity worths of mockup boron carbide and tantalum, (E/T)
NEUTRON CROSS SECTIONS - calculations for fast reactors, evaluation of ENDF/B data for NEUTRONS, DELAYED - yields from fission of fast reactor fuels, review and evaluation of, (E/T)
PLUTONIUM ISOTOPES Pu-239 - neutron fission rate in FCEL core 20N, effects of axial position on
REACTOR CONTROL ELEMENTS - reactivity worths of fast, mockup measurements of, (E/T)
REACTOR CONTROL ELEMENTS - gamma ray heating of mockup tantalum, (E)
REACTORS, FAST - physics parameters of, AIRABL code calculations of
REACTORS, FAST - physics analysis of, development of IMPS and VIM codes for
SODIUM - reactivity worth in fast reactor cores, (E)
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - physics parameters of benchmark cores in, (E/T)
TANTALUM - neutron cross sections for, AIRABL code calculations of effective
TANTALUM - reactivity worth in fast reactor control rod mockups, (E/T)
TANTALUM - neutron absorption rates in fast reactors, effects of core position on
TANTALUM - gamma ray heating of control rod mockups of, (E)
TUNGSTEN - neutron cross sections for, evaluation of ENDF/B data for, (E/T)
URANIUM ISOTOPES U-235 - neutron fission rate in FCEL core 20N, effects of axial position on
URANIUM ISOTOPES U-238 - neutron cross sections for, AIRABL code calculations of effective
URANIUM ISOTOPES U-238 - neutron fission rate in FCEL core 20N, effects of axial position on
URANIUM ISOTOPES U-239 - neutron cross sections for, AIRABL code calculations of effective
ZEBRA REACTOR - physics parameters of benchmark cores in, (E/T)

- 947 26:60522 (ANL--7942) CALCULATIONAL ANALYSIS OF TESTS OF EBR-II CAPTURE-TO-FISSION RATIOS. Meneghetti, D.; Rempert, R. H. (Argonne National Lab., Ill.). Jul 1972. Contract W-31-109-Eng-38. 20p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - neutron capture to fission ratios in, effects of core loading variations and sample location on, (E/T)
NEUTRONS - capture to fission ratios in fast reactor cores, effects of core loading variations and sample location on, (E/T)
PLUTONIUM ISOTOPES Pu-239; PLUTONIUM ISOTOPES Pu-240; PLUTONIUM ISOTOPES Pu-242; URANIUM ISOTOPES U-233; URANIUM ISOTOPES U-235; URANIUM ISOTOPES U-238 - neutron capture to fission ratios in fast reactors, effects of core loading variations and sample location on, (E/T)

- 948 26:60524 (EURFNR--993) FAST BREEDER PROJECT. Fourth Quarterly Report, 1971. Hueper, R. (comp.) (Kernforschungszentrum, Karlsruhe (West Germany)). Translation of report KFK--1271/4. 80p. Dep. NTIS. Work Performed under United States--Euratom Fast Reactor Exchange Program.

FEDERAL REPUBLIC OF GERMANY - reactors for, development of liquid sodium cooled fast breeder
 INCONEL 625 - corrosion by steam
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on mechanical properties of, neutron
 REACTOR FUEL ELEMENTS - radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2), uranium carbide (UC), and uranium oxide (UO_2), for liquid sodium cooled fast breeder reactors
 REACTOR FUEL ELEMENTS - cladding for liquid sodium cooled fast breeder, radiation testing of steel
 REACTORS, BREEDER - development in Germany of liquid sodium cooled fast
 REACTORS, BREEDER - fuel elements for liquid sodium cooled fast, radiation testing of carbide and mixed oxide
 REACTORS, BREEDER - fuel element cladding for liquid sodium cooled fast, radiation testing of steel
 REACTORS, BREEDER - physics measurements for liquid sodium cooled fast, (E/T)
 REACTORS, BREEDER - safety aspects of liquid sodium cooled fast
 REACTORS, BREEDER - instrumentation for liquid sodium cooled fast, development of in-core
 REACTORS, BREEDER - radioactive effluents from liquid sodium cooled fast, effects on environment of
 REACTORS, FAST - development in Germany of liquid sodium cooled breeder
 REACTORS, FAST - fuel elements for liquid sodium cooled breeder, radiation testing of carbide and mixed oxide
 REACTORS, FAST - fuel element cladding for liquid sodium cooled breeder, radiation testing of steel
 REACTORS, FAST - physics measurements for liquid sodium cooled breeder, (E/T)
 REACTORS, FAST - safety aspects of liquid sodium cooled breeder
 REACTORS, FAST - instrumentation for liquid sodium cooled breeder, development of in-core
 REACTORS, FAST - radioactive effluents from liquid sodium cooled breeder, effects on environment of
 REACTORS, LIQUID METAL-COOLED - development in Germany of fast breeder
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast breeder, radiation testing of carbide and mixed oxide
 REACTORS, LIQUID METAL-COOLED - fuel element cladding for fast breeder, radiation testing of steel
 REACTORS, LIQUID METAL-COOLED - physics measurements for fast breeder, (E/T)
 REACTORS, LIQUID METAL-COOLED - safety aspects of fast breeder
 REACTORS, LIQUID METAL-COOLED - instrumentation for fast breeder, development of in-core
 REACTORS, LIQUID METAL-COOLED - radioactive effluents from fast breeder, effects on environment of
 REACTORS, RESEARCH - control rods for FR-3, design characteristics of
 SODIUM - corrosive effects on austenitic steels
 STEAM - corrosive effects on Inconel 625
 STEEL - radiation effects on mechanical properties of, neutron
 STEEL - corrosion by liquid sodium
 URANIUM CARBIDES; URANIUM OXIDES UO_2 - radiation effects on mechanical properties of, neutron
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on mechanical properties of, neutron

949 26:60526 (GEAP--13838) EXPERIMENTAL PROGRAM RESULTS IN SEFOR CORE II. Noble, L. D.; Kussmaul, G.; Derby, S. L. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Jun 1972. Contract AT(04-3)-540. 233p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - physics measurements on core 2 of, demonstration of inherent prompt shutdown mechanism of, (E/T)
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - physics measurements on core 2 of, from 0 to 20 MW

950 26:60527 (JAPFNR--41) PLAN OF EXPERIMENTAL STUDY OF COOLANT MIXING EFFECT IN JAPAN EXPERIMENTAL FAST REACTOR 'JOYO' SUBASSEMBLY. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Translation of a Japanese report. 11p. (PNC-N--141-72-1-11). Dep. NTIS (U. S. Sales Only).

JAPANESE EXPERIMENTAL FAST REACTOR - fuel subassemblies for, mockup measurements of coolant mixing effects in

951 26:60534 (ANL--7944) SODIUM TECHNOLOGY QUARTERLY REPORT, JANUARY--MARCH 1972. Kesser, G. M. (comp. and ed.) (Argonne National Lab., Ill.). Aug 1972. Contract W-31-109-Eng-38. 60p. Dep. NTIS.

CARBON - monitoring in liquid sodium, development of reactor on-line meter for
 CARBON - transport in sodium--steel systems
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Fe--Ni, carbon activity in, data on

- FAST TEST REACTOR - coolant for, development of on-line impurity monitoring meters for liquid sodium
 GAGES AND METERS - development of reactor on-line, for monitoring impurities in liquid sodium
 HYDROGEN - monitoring in liquid sodium, development of reactor on-line meter for
 HYDROGEN - reactions with oxygen in liquid sodium, kinetics of
 HYDROGEN - meters for, effects of hydrogen--oxygen interactions on performance of
 IODINE ISOTOPES I-135 - monitoring in liquid sodium, method for
 IRON ALLOYS AND SYSTEMS - Fe--Ni, carbon activity in, data on
 IRON ALLOYS AND SYSTEMS - Cr--Fe--Ni, carbon activity in, data on
 LIQUID METAL FAST BREEDER REACTOR - coolant for, development of on-line impurity monitoring meters for liquid sodium
 NEON ISOTOPES Ne-23 - separation from noble gas fission products in cover gas, design of equipment for
 NICKEL ALLOYS AND SYSTEMS - Fe--Ni, carbon activity in, data on
 NICKEL ALLOYS AND SYSTEMS - Cr--Fe--Ni, carbon activity in, data on
 OXYGEN - monitoring in liquid sodium, development of reactor on-line meter for
 OXYGEN - reactions with hydrogen in liquid sodium, kinetics of
 OXYGEN - meters for, effects of hydrogen--oxygen interactions on performance of
 SODIUM - impurities in liquid, development of reactor on-line meters for monitoring
 SODIUM - purity standards for liquid metal cooled reactors, development of
 SODIUM - reactions between hydrogen and oxygen in, kinetics of
 SODIUM - corrosive effects on stainless steel of liquid
 SODIUM - radiation effects on, fast neutron
 STAINLESS STEEL - corrosion by liquid sodium
- 952 26:60535 (FRNC-CONF--43) METHOD FOR STUDYING PROBLEMS RELATED TO LIQUID SODIUM FLOWS. Constantin, J. P.; Huffenus, J. P.; Lambert, P.; Leon, P. (Societe Grenobloise d'Etude et d'Applications Hydrauliques (France)). 1972. 6p. (In French). (CONF-720648--5). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).
- HEAT TRANSFER - problems in liquid sodium circulation system, methods for studying
 HEAT TRANSFER SYSTEMS - flow losses in liquid sodium, methods for studying
 HEAT TRANSFER SYSTEMS - heat transfer problems in liquid sodium, methods for studying
 HEAT TRANSFER SYSTEMS - vibration problems in liquid sodium, methods for studying
 LIQUID FLOW - problems in liquid sodium circulation system, methods for studying
 REACTORS, LIQUID METAL-COOLED - cooling systems of, methods for study of flow, heat transfer, and vibrations in
 VIBRATIONS - problems in liquid sodium circulation systems, methods for studying
- 953 26:60536 CHALLENGES IN DEVELOPMENT OF MATERIALS FOR FAST REACTORS: CAN WE REALLY DO BETTER. Karsten, G. (Gesellschaft fuer Kernforschung mbH, Karlsruhe, Ger.). pp 75-88 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.
- HELIUM - development as coolant for fast reactors
 REACTORS, FAST - coolant for, development of liquid sodium, helium, and steam
 REACTORS, FAST - economics considerations for
 SODIUM; STEAM - development as coolant for fast reactors
 SNR REACTOR - materials of construction for, development of
- 954 26:60537 WATER-HAMMER IN A CLOSED CIRCUIT ANALYSIS WITH A HYBRID COMPUTER. De Hes, M. (N. V. Neratoom, The Hague). pp 488-95 of Conference on Hybrid Computation. Brussels; Presses Academiques Europeenes (1970). From 6. conference on hybrid computation; Munich, Germany (31 Aug 1970). See CONF-700826.
- COMPUTER PROGRAMS - development of hybrid, for analysis of water hammer in liquid sodium
 HEAT TRANSFER SYSTEMS - water hammer effects from quick acting valve closure in liquid sodium, hybrid computer program for analysis of
 SODIUM - water hammer effects in flowing liquid, hybrid computer program for analysis of
 SNR REACTOR - cooling system of, hybrid computer program for study of water hammer effects from quick acting valve closure in primary sodium
- 955 26:60538 (ANL--7912) PERFORMANCE IN THE EBR-II OF A MIXED-OXIDE FUEL ELEMENT WITH AN INTENTIONAL CLADDING DEFECT. Koenig, J. F. (Argonne National Lab., Ill.). Jul 1972. Contract W-31-109-eng-38. 30p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - fuel elements in, performance of cladding defected plutonium oxide (PuO₂)--uranium oxide (UO₂), (E)

FISSION PRODUCTS - release from cladding defected plutonium oxide (PuO_2)--uranium oxide (UO_2) fast reactor fuel elements at low burnup, (E)
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 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fission gas release from cladding defected fast reactor fuel elements of, at low burnup, (E)
 REACTOR FUEL ELEMENTS - performance at low burnup of cladding defected plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, (E)
 REACTOR FUEL ELEMENTS - fission gas release from cladding defected plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, (E)
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 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fission gas release from cladding defected fast reactor fuel elements of, at low burnup, (E)

- 956 26:60541 (KFK--1603) FAST BREEDER PROJECT STATUS REPORT, 1972. (Kernforschungszentrum, Karlsruhe (West Germany)). May 1972. 130p. (In German and English). (EUR--4843). Dep. NTIS (U. S. Sales Only).

SNR REACTOR - project status and review
 SNR REACTOR - development of, summary

- 957 26:60542 (TID--26143) DEVELOPMENT OF CYGRO-F FOR FUEL ROD BEHAVIOR ANALYSIS. Harbourn, B. L.; Beck, M. S.; Foster, J. P.; Biancheria, A. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). 1971. Contract AT(11-1)-3045. 56p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuel rod performance analysis for, CYGRO-F code system of models for, (E/T)
 REACTOR FUEL ELEMENTS - performance of, CYGRO-F code models for analysis of, (E/T)

- 958 26:60545 LMFBR FUEL DESIGN: WHY CAN'T WE DO BETTER. Kintner, E. E. (Atomic Energy Commission, Washington, D. C.). pp 1-18 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, problems in development of
 REACTOR FUEL ELEMENTS - development of liquid metal cooled fast, problems in
 REACTORS, FAST - fuel elements for liquid metal cooled, problems in development of
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast, problems in development of
 REACTORS, POWER - fuel elements for liquid metal cooled fast, problems in development of

- 959 26:60546 FUEL ROD DESIGN BASES. Anderson, C. A. Jr.; Markley, R. A.; Patterson, J. F. (Westinghouse Electric Corp., Madison, Pa.). Contract AT(30-1)-4200. pp 59-74 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, establishment of design limits for

- 960 26:60547 CONSIDERATION OF STABILIZED STAINLESS-STEEL ALLOYS FOR LMFBR FUEL CLADDING. Spalaris, C. N.; Zebroski, E. L. (General Electric Co., Sunnyvale, Calif.). pp 89-100 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

LIQUID METAL FAST BREEDER REACTOR - fuel element cladding for, corrosion of stainless steel Type 304 and 316
 REACTOR FUEL ELEMENTS - cladding for sodium cooled fast, corrosion of stainless steel Type 304 and 316
 STAINLESS STEEL - corrosion by sodium of fuel element cladding of Type 304 and 316, loss of carbon, nitrogen, and boron during
 STAINLESS STEEL - stabilization of Type 304 and 316, effects on sodium corrosion by

- 961 26:60548 HELICAL WIRE SPACER MODEL IN LARGE-BUNDLE THERMAL HYDRAULICS. Kolesar, Donald C. (WADCO Corp., Richland, Wash.). pp 101-11 of Fast Reactor Fuel Element Technology.

/Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

LIQUID FLOW - rotation effects of helical spacers in sodium cooled fuel assemblies, use of COBRA-2A code for model of
 REACTOR FUEL ELEMENTS - spacers in bundles of liquid sodium cooled, model of flow effects of helical
 REACTORS, LIQUID METAL-COOLED - fuel elements in, model of flow effects of helical spacers in assemblies of
 SODIUM - flow in fuel assemblies, effects of helical spacers on

- 962 26:60549 ANALYSIS OF BOWING AND INTERACTION OF LMFBR FUEL SUBASSEMBLIES. Burchill, William E. (Combustion Engineering, Windsor, Conn.). pp 113-34 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

LIQUID METAL FAST BREEDER REACTOR - fuel elements of, analysis of bowing of assemblies of
 REACTOR FUEL ELEMENTS - bowing of liquid metal cooled assemblies of, model for analysis of
 REACTOR FUEL ELEMENTS - bowing of, effects of restraint, thermal expansion, swelling, and creep on

- 963 26:60551 MIXED-OXIDE FUEL PIN PERFORMANCE ANALYSIS USING THE OLYMPUS COMPUTER CODE. Boltax, A.; Biancheria, A.; Harbourn, B. L.; Soffa, T. P. (Westinghouse Electric Corp., Madison, Pa.). Contract AT(30-1)-4120. pp 157-99 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

COMPUTER PROGRAMS - OLYMPUS-2, for irradiation performance of fast breeder reactor fuel pins
 LIQUID METAL FAST BREEDER REACTOR - fuel elements of, analysis of irradiation performance of pin
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , irradiation performance of fast reactor fuel pins of, OLYMPUS-2 code for
 REACTOR FUEL ELEMENTS - irradiation performance of plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, OLYMPUS-2 code for
 REACTOR FUEL ELEMENTS - cladding for fast breeder, irradiation performance of stainless steel
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , irradiation performance of fast reactor fuel pins of, OLYMPUS-2 code for

- 964 26:60553 SATURN CODES AND MATERIAL DATA EVALUATION. Kummerer, K.; Depisch, F.; Elbel, H.; Kaempf, H. (Kernforschungszentrum, Karlsruhe, Ger.). pp 211-25 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

COMPUTER PROGRAMS - SATURN-1, for mechanical and thermal performance of fast reactor fuel pins
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , performance of stainless steel clad fast reactor fuel pins of, SATURN-1 code for analysis of mechanical and thermal
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 REACTORS, BREEDER; REACTORS, FAST - fuel elements of, SATURN-1 code for analysis of mechanical and thermal performance of
 REACTORS, POWER - fuel elements of fast breeder, SATURN-1 code for analysis of mechanical and thermal performance of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel elements of, use of SATURN-1 code for analysis of mechanical and thermal performance of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , performance of stainless steel clad fast reactor fuel pins of, SATURN-1 code for analysis of mechanical and thermal

- 965 26:60559 THERMAL PERFORMANCE OF FUEL RODS AND THE PERFORMANCE OF LMFBRs. Sayles, C. W.; Nathan, M. E. (Atomics International, Canoga Park, Calif.). pp 383-92 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

LIQUID METAL FAST BREEDER REACTOR - fuel elements of, thermal performance of
 REACTOR FUEL ELEMENTS - thermal performance of, requirements of

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26:60565 STEADY-STATE PERFORMANCE OF PuO_2 -- UO_2 FAST REACTOR FUELS. Craig, C. N.; Appleby, W. K.; Perry, K. J.; (and others) (General Electric Co., Sunnyvale, Calif.). Contract AT(04-3)-189. pp 555-78 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements in, steady state performance of
 FISSION PRODUCTS - release from plutonium oxide--uranium oxide fast reactor fuel elements of gas, effects of burnup on

PLUTONIUM - migration in plutonium oxide--uranium oxide fuel elements, effects of melting on

PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , performance of stainless steel clad fast reactor fuel elements of, steady state

PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , thermal conductivity of, effects of stoichiometry on
 REACTOR FUEL ELEMENTS - performance of stainless steel clad mixed plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, steady state

REACTOR FUEL ELEMENTS - failure of stainless steel clad fast, effects of fission gas release rate of

URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , performance of stainless steel clad fast reactor fuel elements of, steady state

URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , thermal conductivity of, effects of stoichiometry on

967

26:60574 BEHAVIOR OF SODIUM-BONDED (U,Pu)C FUEL ELEMENTS AFTER MODERATE BURNUP. Barner, J. O. (Los Alamos Scientific Lab., N. Mex.). pp 819-47 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

PLUTONIUM CARBIDES - PuC -- UC , performance after moderate burnup of stainless steel Type 316 clad sodium bonded fast reactor fuel elements of, (E)

REACTOR FUEL ELEMENTS - performance after moderate burnup of stainless steel Type 316 clad mixed plutonium carbide (PuC)--uranium carbide (UC) fast, with sodium bonding, (E)

REACTORS, FAST - fuel elements in, performance after moderate burnup of stainless steel Type 316 clad sodium bonded mixed plutonium carbide (PuC)--uranium carbide (UC), (E)

URANIUM CARBIDES - PuC -- UC , performance after moderate burnup of stainless steel Type 316 clad sodium bonded fast reactor fuel elements of, (E)

968

26:60576 IRRADIATION BEHAVIOR OF SODIUM-BONDED MIXED-CARBIDE FUEL PINS. Harbourne, B. L. (Westinghouse Electric Corp., Madison, Pa.); Levine, P. J.; Latimer, T. W.; Neimark, L. A. Contract AT(30-1)-3791. pp 869-94 of Fast Reactor Fuel Element Technology. /Farmakes, Ruth (ed.). Hinsdale, Ill.; American Nuclear Society (1971). From Conference on fast reactor fuel element technology; New Orleans, La. (13 Apr 1971). See CONF-710414.

CHROMIUM; IRON - additions to plutonium carbide (PuC)--uranium carbide fuels, effects on irradiation performance of, (E)

PLUTONIUM CARBIDES - PuC -- UC , radiation effects on stainless steel clad sodium bonded fuel pins of, effects of chromium and iron additions on, (E)

REACTOR FUEL ELEMENTS - performance of stainless steel clad sodium bonded plutonium carbide (PuC)--uranium carbide (UC) pin, at high burnup, (E)

REACTORS, FAST - fuel elements for, irradiation performance of stainless steel clad sodium bonded plutonium carbide (PuC)--uranium carbide (UC) pins, (E)

URANIUM CARBIDES - PuC -- UC , radiation effects on stainless steel clad sodium bonded fuel pins of, effects of chromium and iron additions on, (E)

969

26:60578 STATUS AND PROBLEMS OF FAST REACTOR FUELS. Weber, Clifford E. (Atomic Energy Commission, Washington, D. C.). pp 43-65 of Education and Research in the Nuclear Fuel Cycle. /Elliott, David M. (ed.). Norman, Okla.; Univ. of Oklahoma Press (1972). From Meeting on education and research in the nuclear fuel cycle; Norman, Okla. (5 Oct 1970). See CONF-701035.

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - fuel elements for, design and operating parameters of

REACTOR FUEL ELEMENTS - development of fast, review

REACTOR FUEL ELEMENTS - radiation effects on fast, evaluation of fast neutron

- 970 26:60583 EXPERIENCES DURING STARTUP OF THE COMPACT SODIUM-COOLED NUCLEAR ENERGY INSTALLATION KNK. Marth, W. KFK Nachr.; 4: No. 2, 24-8(1972). (In German).
KNK POWER REACTOR - startup of, problems in
- 971 26:60585 (AI-AEC--13035) LMFBR SAFETY PROGRAMS. Annual Technical Progress Report, Government Fiscal Year 1972. (Atomics International, Canoga Park, Calif.). 15 Aug 1972. Contract AT(04-3)-824. 25p. Dep. NTIS.
FAST FLUX TEST FACILITY - coolant combustion accidents in, effects of sodium, (E/T)
LIQUID METAL FAST BREEDER REACTOR - safety research on, summary of fiscal year 1972
LIQUID METAL FAST BREEDER REACTOR - coolant pipe rupture in, sodium jet discharge hydrodynamics for, (E/T)
LIQUID METAL FAST BREEDER REACTOR - coolant combustion accidents in, release and transport of aerosols and energy from sodium, (E/T)
SODIUM - combustion in reactor accidents, release and transport of aerosols and energy from, (E/T)
URANIUM OXIDES UO_2 - vaporization in reactor containment vessels, aerosol concentration and particle size from, (E/T)
- 972 26:60598 HYBRID COMPUTER MODEL FOR A COUNTERFLOW HEAT EXCHANGER USING THE CSDT-METHOD. Beijdorff, A. F. (Delft Univ. of Tech., Netherlands); De Hes, M. pp 479-87 of Conference on Hybrid Computation. Brussels; Presses Academiques Europeenes (1970). From 6. conference on hybrid computation; Munich, Germany (31 Aug 1970). See CONF-700826.
COMPUTER PROGRAMS - development of hybrid, for flow model of liquid metal heated counter current heat exchangers
HEAT EXCHANGERS - flow model for counter current sodium, hybrid computer program for
SNR REACTOR - heat exchangers for, hybrid computer model for counter current
- 973 26:60606 (DOCKET-50016--172) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for July 1972. (Power Reactor Development Co., Detroit, Mich.). 12 Oct 1972. 14p. (PRDC-EF--107). Dep. NTIS.
FERMI FAST BREEDER REACTOR - operations during July 1972
FERMI FAST BREEDER REACTOR - maintenance during July 1972
FERMI FAST BREEDER REACTOR - testing during July 1972
- 974 26:60633 (DOCKET-50016--171) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. No Further Operation at Powers in Excess of 1 MWt. (Power Reactor Development Co., Detroit, Mich.). 13 Oct 1972. 1p. Dep. NTIS.
FERMI FAST BREEDER REACTOR - fuel for, plans for return of core A
- 975 26:60745 (CONF-721018--1) ORNL BENCHMARK EXPERIMENT FOR NEUTRON TRANSPORT IN THICK SODIUM. Maerker, R. E.; Muckenthaler, F. J.; Clifford, C. E. (Oak Ridge National Lab., Tenn.). 1972. 18p. Dep. NTIS. From 4. international conference on reactor shielding; Paris, France (9 Oct 1972).
NEUTRONS, EPITHERMAL; NEUTRONS, FAST; NEUTRONS, INTERMEDIATE - transport through thick sodium, benchmark experiment for verification of calculations of
REACTORS, FAST - shielding of, neutron transport through thick sodium
SODIUM - neutron transport through thick, benchmark experiment for verification of calculations of
- 976 26:60751 DEVELOPMENT OF A DIGITAL CONTROL PROGRAM FOR A NUCLEAR FAST REACTOR BY A HYBRID COMPUTER. Ciriegi, U. (CNEN, Bologna); Rimini, B.; Turrini, E. pp 442-54 of Conference on Hybrid Computation. Brussels; Presses Academiques Europeenes (1970). From 6. conference on hybrid computation; Munich, Germany (31 Aug 1970). See CONF-700826.
COMPUTER PROGRAMS - development for hybrid computer for on-line control of fast reactions, description of
REACTOR CONTROL SYSTEMS - program for on-line hybrid computer, development of
REACTORS, FAST - control system for, development of program for on-line hybrid computer
REACTORS, LIQUID METAL-COOLED - control systems for sodium cooled fast test, development

of program for on-line hybrid computer
 REACTORS, TEST - control systems for sodium cooled fast, development program for on-line hybrid computer

- 977 27:238 NON-COMPENSATED, LIQUID METAL, DIRECT CURRENT MAGNETOHYDRODYNAMIC GENERATOR AND PUMP. Flores, F. (Junta de Energia Nucleare, Madrid). An. Fis.; 67: No. 7-8, 291-300(1971). (In Spanish).
 MAGNETOHYDRODYNAMIC GENERATORS - performance of non-compensated liquid-metal dc, (T)
 PUMPS (LIQUID METAL) - performance of non-compensated electromagnetic, (T)
- 978 27:242 (CEA-CONF--2045) SOME ASPECTS OF HYDROSTATIC BEARINGS IN SODIUM PUMPS. Elie, X. (Commissariat a l'Energie Atomique, Cadarache (France). Centre d'Etudes Nucleaires). 1972. 4p. (In French). (CONF-720648--16). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).
 BEARINGS - design of improved hydrostatic, for sodium pumps
 PUMPS (LIQUID METAL) - bearings for sodium, design of improved hydrostatic
 SODIUM - pumps for, design of improved hydrostatic bearings for
- 979 27:243 (FRNC-CONF--46) HYDRODYNAMIC INSTABILITY IN AN ELECTROMAGNETIC PUMP. Briot, P. M. H.; Le Frere, J.-P. (Groupement Atomique Alsacienne Atlantique, Le Plessis-Robinson (France)). 1972. 4p. (In French). (CONF-720648--4). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).
 ELECTROMAGNETIC PUMPS - hydraulic instability in annular induction, effects of helical flow on
- 980 27:725 (ORNL-TM--3969) FUELS AND MATERIALS DEVELOPMENT PROGRAM QUARTERLY PROGRESS REPORT FOR PERIOD ENDING JUNE 30, 1972. Patriarca, P. (Oak Ridge National Lab., Tenn.). Sep 1972. Contract W-7405-eng-26. 114p. Dep. NTIS.
 BOILERS - inspection of failed ALCO/BLH sodium-heated
 BORON CARBIDES - radiation effects on defect distribution in, fast neutron
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Mo--Nb--Ni--steel, stress corrosion by aqueous sodium chloride
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Mo--Ni--V--W, stress corrosion by aqueous sodium chloride
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Mo--steel, stress corrosion by aqueous sodium chloride
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 CROLOY - creep rupture properties at 565°C
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 MOLYBDENUM ALLOYS AND SYSTEMS - Cr--Mo--Ni--V--W, stress corrosion by aqueous sodium chloride
 MOLYBDENUM ALLOYS AND SYSTEMS - Cr--Mo--steel, stress corrosion by aqueous sodium chloride
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 NEUTRONS, FAST - effects on defect distribution in boron carbide
 NEUTRONS, FAST - effects on microstructure of tantalum, relations with temperature
 NEUTRONS, FAST - effects on mechanical properties of stainless steel fuel cladding
 NICKEL ALLOYS AND SYSTEMS - Cr--Mo--Nb--Ni--steel, stress corrosion by aqueous sodium chloride
 NICKEL ALLOYS AND SYSTEMS - Cr--Mo--Ni--V--W, stress corrosion by aqueous sodium chloride
 NICKEL ALLOYS AND SYSTEMS - Cr--Mo--Ni--steel, tensile properties of welds of
 NIOBIUM ALLOYS AND SYSTEMS - Cr--Mo--Nb--Ni--steel, stress corrosion by aqueous sodium chloride
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PLATINUM ALLOYS AND SYSTEMS - Pt-base--Rh, properties for use as isotope heat source capsules
 PLATINUM ALLOYS AND SYSTEMS - Pt-base--Rh--W, properties for use as isotope heat source capsules
 PLATINUM ALLOYS AND SYSTEMS - Hf--Pt-base--Rh--Ti--W, properties for use as isotope heat source capsules
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 REACTORS, BREEDER - fuels for advanced fast, development of
 RHODIUM ALLOYS AND SYSTEMS - Pt-base--Rh, properties for use as isotope heat source capsules
 RHODIUM ALLOYS AND SYSTEMS - Pt-base--Rh--W, properties for use as isotope heat source capsules
 RHODIUM ALLOYS AND SYSTEMS - Hf--Pt-base--Rh--Ti--W, properties for use as isotope heat source capsules
 SODIUM CHLORIDES - corrosive effects on refractory alloys and stainless steel, relations with stress
 STAINLESS STEEL - stress corrosion of Types 304 and 18-18-2, by sodium chloride
 STAINLESS STEEL - development and testing of Type 316, for Fast Breeder Reactor fuel cladding
 STAINLESS STEEL - welds in Type 304, using Type 308 filler metal, effects of composition on
 STAINLESS STEEL - radiation effects on mechanical properties of Types 304 and 316, fast neutron
 STAINLESS STEEL - radiation effects on titanium-modified Type 316, fast neutron
 STAINLESS STEEL - mechanical properties of Type 304, at 593 to 1100°F
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 STEEL - Cr--Mo--steel, stress corrosion by aqueous sodium chloride
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 THORIUM OXIDES ThO₂ - ThO₂--W-base, creep properties at 2000°C
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 ULTRASONIC TESTING - methods for reactor materials, development of
 URANIUM NITRIDES - radiation effects on fuels, neutron
 VANADIUM ALLOYS AND SYSTEMS - Cr--Mo--Ni--V--W, stress corrosion by aqueous sodium chloride

981

27:728 (WARD--3791-47) VANADIUM ALLOY CLADDING DEVELOPMENT Final Report. Whitlow, G. A.; Nadler, R. A.; Svedberg, R. C. (Westinghouse Electric Corp., Madison, Pa. Advanced Reactors Div.). Nov 1970. Contract AT(30-1)-3791. 201p. Dep. NTIS.

CHROMIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, fabrication of bars, sheets, and tubes of, for use as fuel cladding in LMFBR
 CHROMIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, physical properties and microstructure of, for use as fuel cladding in fast breeder reactors, effects of temperature on
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 SODIUM - effects on mechanical properties and metallography of titanium--vanadium-base alloy an Vanstar-7, -8, and -9 at 600 to 800°C
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 TITANIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, fabrication of bars, sheets, and tubes of, for use as fuel cladding in LMFBR
 TITANIUM ALLOYS AND SYSTEMS - Ti--V-base, physical properties and microstructure of, for use as fuel cladding in fast breeder reactors, effects of temperature on
 TITANIUM ALLOYS AND SYSTEMS - Cr--Ti--V-base, physical properties and microstructure of, for use as fuel cladding in fast breeder reactors, effects of temperature on

TITANIUM ALLOYS AND SYSTEMS - Ti--V-base, corrosion by flowing sodium at 600 to 800°C for use as LMFBR fuel cladding
 TITANIUM ALLOYS AND SYSTEMS - Ti--V-base, mechanical properties and metallography of, for use as LMFBR fuel cladding, effects of flowing sodium at 600 to 800°C on
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 VANADIUM ALLOYS AND SYSTEMS - Cr--V-base, reactions with LMFBR fuel cladding of, with nitrogen and oxygen, relations of tensile properties to
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 VANSTAR-9 - mechanical properties and metallography of, for use as LMFBR fuel cladding, effects of flowing sodium at 600 to 800°C on
 VANSTAR-9 - corrosion by flowing sodium at 600 to 800°C for use as LMFBR fuel cladding

- 982 27:844 DIMENSIONAL STABILITY OF TANTALUM CONTROL RODS IN LMFBRs. Bates, J. F.; Pitner, A. L. (Westinghouse Hanford Co., Richland, Wash.). Nucl. Technol.; 16: No. 3, 406-9(Nov 1972).

LIQUID METAL FAST BREEDER REACTOR - control elements for, dimensional stability of tantalum

NEUTRONS, PILE - effects on swelling of tantalum control rods

TANTALUM - radiation effects on swelling of, in-pile

- 983 27:1926 STATUS OF US FAST REACTOR OPERATIONS. Lawroski, H. (Argonne National Lab., Idaho Falls, Idaho); Alexanderson, E. L.; Shoudy, A. A.; Arterburn, J. O.; Greebler, P. Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 10(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

EXPERIMENTAL BREEDER REACTOR-II; FERMI FAST BREEDER REACTOR - operation of, summary of
 REACTORS, FAST - operation in U. S., status of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operation of, summary of

- 984 27:1927 RAPSODIE EXPERIENCE: PHENIX CONSTRUCTION AND PREOPERATIONAL EXPERIENCE. Chantot, H. (CEN de Cadarache, Saint-Paul-Lez-Durance, France); Megy, J. Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 11-12(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

CADARACHE REACTORS (RAPSODIE) - operation of, summary of
 PHENIX FAST REACTOR - construction of, status of

- 985 27:1929 STATUS OF PFR CONSTRUCTION. Campbell, R. H.; Laithwaite, J. M. (Atomic Energy

Research Establishment, Harwell, Eng.). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 13(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

PROTOTYPE FAST REACTOR - construction of, status of

- 986 27:1931 STATUS OF THE SNR PROJECT AND FUTURE PLANS FOR LMFBR DEVELOPMENT. Guthmann, Elmar A. (Interatom, Bensberg, Ger.). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 14-15(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

SNR REACTOR - development of, status of

- 987 27:1933 US LMFBR DEMONSTRATION PLANT TODAY. Van Nort, Peter S. (Project Management Corp., Chicago). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 16(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

LIQUID METAL FAST BREEDER REACTOR - development of, status of

- 988 27:1935 KEYS TO OPEN THE DOOR OF INDUSTRIAL SUCCESS OF THE LMFBR. Taylor, J. J.; Petrick, N. A. (Westinghouse Electric Corp., Pittsburgh). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 16-17(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

LIQUID METAL FAST BREEDER REACTOR - development of, technical and economic aspects of

- 989 27:1936 LMFBR DEMONSTRATION PLANT PROGRAM. Balent, R. (Atoms International, Canoga Park, Calif.). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 17-18(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

LIQUID METAL FAST BREEDER REACTOR - design parameters of

- 990 27:1937 LONG-RANGE CONSIDERATIONS IN THE DEVELOPMENT OF HIGHER PERFORMANCE LMFBRs. Noyes, R. C. (Combustion Engineering Inc., Windsor, Conn.). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 18-19(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

LIQUID METAL FAST BREEDER REACTOR - design parameters of

- 991 27:1946 LIQUID METAL COOLED FAST BREEDER REACTOR DEVELOPMENT AND ITS MECHANICAL-STRUCTURAL REQUIREMENTS AND PROBLEMS. Mueller, R. A.; Smidt, D. (Kernforschungszentrum, Karlsruhe, Ger.). Nucl. Eng. Des.; 19: No. 1, 85-98(1972). From 1. international conference on structural mechanics in reactor technology; Berlin, Germany (20 Sep 1971). See CONF-710903--(Vol.19,No.1).

REACTORS, BREEDER - development of liquid metal cooled fast, mechanical structural problems in

REACTORS, FAST - development of liquid metal cooled breeder, mechanical structural problems in

REACTORS, LIQUID METAL-COOLED - development of fast breeder, mechanical structural problems in

- 992 27:1948 (ANL--7910, pp 31-336) FAST REACTOR PHYSICS. Jan 1972. In Applied Physics Division annual report, July 1, 1970 to June 30, 1971.

CRITICAL ASSEMBLIES - physics measurements in ZPR-9 mockup of Fast Test Reactor

CRITICAL ASSEMBLIES - core composition for ZPR-9 Assembly 27

CRITICAL ASSEMBLIES - control rod worths in ZPR-9 Assemblies 26 and 27, (E)

CRITICAL ASSEMBLIES - reactivity temperature coefficients in ZPR-9 Assembly 27, (E)

CRITICAL ASSEMBLIES - fuel worths in ZPR-9 Assembly 27, (E)

CRITICAL ASSEMBLIES - neutron reaction rate distributions in ZPR-9 Assembly 27, (E)

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CRITICAL ASSEMBLIES - neutron reaction rate distributions in FTR-3 mockup in ZPR-9, (E/T)
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 CRITICAL ASSEMBLIES - reactivity worth distributions in ZPPR Assembly 2, (E/T)
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 CRITICAL ASSEMBLIES - core composition for ZPR-3 Assembly 63
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 CRITICAL ASSEMBLIES - physics parameters of benchmark fast, accuracy of ENDF/B data for calculation of
 ENGINEERING TEST REACTOR - in-pile loop design for, neutron filter effects on Fuel Element Failure Propagation
 ENGINEERING TEST REACTOR - in-pile loop for, γ ray dose rates in Fuel Element Failure Propagation, (T)
 FAST TEST REACTOR - physics parameter measurements in ZPR-9 mockups of
 FAST TEST REACTOR - Doppler reactivity effects in, calculation of isothermal
 IN-PILE LOOPS - design of Fuel Element Failure Propagation, neutron filter effects on
 IN-PILE LOOPS - gamma radiation dose rates in Fuel Element Failure Propagation, effects of radioactive sodium and fission products on, (T)
 LIQUID METAL FAST BREEDER REACTOR - physics of, methods for measurement and analysis of
 LIQUID METAL FAST BREEDER REACTOR - physics parameters of, composition of critical assemblies for benchmark measurements of
 LIQUID METAL FAST BREEDER REACTOR - core disassembly accidents in, fuel assembly failure propagation sequence for, (T)
 NEUTRON CROSS SECTIONS - evaluation of ENDF/B data by benchmark fast critical assembly measurements
 NEUTRONS - capture to fission ratios in plutonium-239, uranium-235, and uranium-238, integral, (E/T)
 NEUTRONS - reactions (n,f) with plutonium-239 in fast assemblies, effects of control rod mockup on, (E)
 NEUTRONS - capture by tantalum-181 in fast assembly control rod mockups, (E)
 PLUTONIUM ISOTOPES Pu-239 - neutron capture to fission ratio in, integral, (E/T)
 PLUTONIUM ISOTOPES Pu-239 - neutron fission rate distributions near control rod mockups in fast critical assemblies, (E)
 PLUTONIUM ISOTOPES Pu-239 - self-shielding factors for, effects of potential scattering cross section on, (T)
 PLUTONIUM OXIDES PuO_2 - Doppler reactivity effects in ZPR-6 Assemblies 6, 6A, and 7, small sample, (E)
 PLUTONIUM OXIDES PuO_2 - Doppler reactivity effects in ZPPR Assembly 2, small sample, (E)
 REACTORS - subcriticality of, noise effects on rod drop analysis of, (E/T)
 REACTORS - reactivity of subcritical, inverse kinetics and pulsed neutron methods analyses of, (T)
 REACTORS, FAST - physics of, methods for measurement and analysis of
 REACTORS, FAST - core disassembly accidents in, two-dimensional model for space-time kinetics analysis of
 TANTALUM ISOTOPES Ta-181 - neutron capture rate distribution in fast critical assembly control rod mockups, (E)
 URANIUM ISOTOPES U-235; URANIUM ISOTOPES U-238 - neutron capture to fission ratio in, integral, (E/T)

URANIUM OXIDES UO_2 - Doppler reactivity effects in FTR mockups in ZPR-9, small sample, (E/T)
 URANIUM OXIDES UO_2 - Doppler reactivity effects in ZPR-6 Assemblies 6, 6A, and 7, small sample, (E)
 URANIUM OXIDES UO_2 - Doppler reactivity effects in ZPPR Assembly 2, small sample, (E)

- 993 27:1949 (GEAP--13761) DESIGN, DEVELOPMENT, AND TESTING OF THE SEFOR REACTIVITY OSCILLATOR SYSTEM. Margetanski, W. J.; McKeehan, E. R. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Jun 1972. Contract AT(04-3)-540. 46p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - reactivity oscillator system for, design and testing of
- 994 27:1961 CURRENT STATE OF NUCLEAR POWER PLANT CONTROL ACTIVITY IN THE UNITED KINGDOM. Butterfield, M. H. (Atomic Energy Establishment, Winfrith, Eng.). pp 99-103 of Nuclear Power Plant Control and Instrumentation. Vienna; International Atomic Energy Agency (1972). From Meeting of nuclear power plant control and instrumentation; Vienna, Austria (15 Mar 1971). See STI/PUB--301; CONF-710340.
- PROTOTYPE FAST REACTOR; REACTORS, GAS-COOLED - control system for, design features of
 REACTORS, POWER - control systems for, status of U.K. development of
 STEAM-GENERATING HEAVY-WATER-MODERATED REACTOR - control system for, design features of
- 995 27:1971 SODIUM INSTRUMENTATION OF FAST BREEDER REACTORS. Golder, J. A. (United Kingdom Atomic Energy Authority, Risley, Eng.). pp 251-71 of Nuclear Power Plant Control and Instrumentation. Vienna; International Atomic Energy Agency (1972). From Meeting of nuclear power plant control and instrumentation; Vienna, Austria (15 Mar 1971). See STI/PUB--301; CONF-710340.
- PROTOTYPE FAST REACTOR - coolant for, operation and performance of on-line instrumentation for sodium
- 996 27:1975 (ANL--7949) LIQUID-ENTRAINMENT RATE AND DROPLET SIZE RELATIVE TO POTENTIAL FUEL-FAILURE PROPAGATION DUE TO FISSION-GAS JET IMPINGEMENT IN LMFBR SUBASSEMBLIES. Chawla, T. C. (Argonne National Lab., Ill.). Jun 1972. Contract W-31-109-eng-38. 32p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - coolant in core of, droplet entrainment rate and size from impingement of fission gas jets in
 REACTOR FUEL ELEMENTS - failure of liquid metal cooled pin, droplet entrainment rate and size from impingement of fission gas jets on coolant from
 SODIUM - fission gas jets in liquid, droplet entrainment rate and size from impingement of
- 997 27:1976 (BNWL--568) BUILDUP OF RADIOISOTOPES EXTERNAL TO REACTOR CORE. Bunch, W. L.; Zwiibel, H. S. (Battelle-Northwest, Richland, Wash. Pacific Northwest Lab.). Sep 1967. 10p. Dep. NTIS.
- FAST TEST REACTOR - cooling system of, calculations of radioisotope buildup in
 RADIOISOTOPES - transport in liquid sodium reactor coolants, calculations for
 RADIOISOTOPES - precipitation from liquid sodium reactor coolants, calculations for
- 998 27:1977 (EURFNR--999) SODIUM BOILING EXPERIMENTS IN A FUEL ELEMENT MODEL. Cramer, M.; Dorr, B. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorentwicklung). Translation of report KFK--1541. 66p. Dep. NTIS. Work Performed under United States--Euratom Fast Reactor Exchange Program.
- REACTOR FUEL ELEMENTS - deformation in liquid sodium coolant, effects of boiling on
 SNR REACTOR - coolant in, effects of boiling sodium
 SODIUM - boiling of flowing liquid, bubble motion in
 SODIUM - boiling of flowing liquid, pressure effects from
- 999 27:1978 (FRNC-CONF--40) HYDRAULIC AND THERMAL STUDY OF A FUEL ASSEMBLY. Demargne, F.; Lecocq, P. (Electricite de France, Chatou). 1972. 8p. (In French). (CONF-720648--15). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).

REACTOR FUEL ELEMENTS - coolant flow in assemblies of pin, mockup studies of mixing in sodium

REACTOR FUEL ELEMENTS - heat transfer in assemblies of pin, mockup studies of sodium

REACTORS, BREEDER - heat transfer in sodium cooled, mockup studies of

REACTORS, BREEDER - coolant flow in sodium cooled, mockup studies for mixing in

REACTORS, FAST - heat transfer in sodium cooled, mockup studies of

REACTORS, FAST - coolant flow in sodium cooled, mockup studies for mixing in

REACTORS, LIQUID METAL-COOLED - heat transfer in sodium cooled fast breeder, mockup studies of

REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - coolant flow in sodium cooled fast breeder, mockup studies of mixing in

REACTORS, POWER - heat transfer in sodium cooled fast breeder, mockup studies of

SODIUM - heat transfer in fuel pin assemblies, mockup studies of

SODIUM - flow in fuel pin assemblies, mockup studies of mixing in

- 1000 27:1981 EROSION BY SMALL LEAKS IN SODIUM WATER HEAT EXCHANGERS. Pugh, A. R. (Central Electricity Generating Board, Berkeley, Eng.). J. Brit. Nucl. Energy Soc.; 11: No. 3, 263-9 (Jul 1972).

HEAT EXCHANGERS - tube erosion in sodium heated, model for effects of small water leaks on, (E/T)

REACTORS, LIQUID METAL-COOLED - heat exchanger tube erosion in sodium cooled, effects of small water leaks on, (E/T)

- 1001 27:2008 (FRNC-CONF--42) HYDRAULIC AND THERMAL STUDY ON A STEAM GENERATOR MOCKUP. Lavalier, C.; Bouju, J.-L. (Societe Babcock-Atlantique, Paris (France)). 1972. 9p. (In French). (CONF-720648--17). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).

BOILERS - performance of prototype 45 MW sodium heated steam generator, thermal and hydraulic

BOILERS - safety of prototype 45 MW sodium heated steam generator, simulation of effects of sodium--water reactions in

REACTORS, BREEDER; REACTORS, FAST - steam generators for sodium cooled power, hydraulic and thermal studies on

REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - steam generators for sodium cooled fast breeder, hydraulic and thermal studies on mockup of

SODIUM - reactions with water, simulation following heat exchanger tube rupture of

WATER - reactions with liquid sodium, simulation following heat exchanger tube rupture of

- 1002 27:2013 PROSPECTS OF FAST REACTORS. de Haas van Dorsser, A. H. Atoomenergie Haar Toepass.; 14: 178-82 (1972). (In Dutch). From Conference on nuclear energy; Petten, Netherlands (30 May 1972). See CONF-720555.

REACTORS, BREEDER - development of liquid metal cooled fast, world-wide

REACTORS, FAST - development of liquid metal cooled breeder, world-wide

REACTORS, LIQUID METAL-COOLED - development of fast breeder, world-wide

REACTORS, POWER - development of liquid metal cooled fast breeder, world-wide

- 1003 27:2015 NUCLEAR POWER RESEARCH IN THE NETHERLANDS. Goedkoop, J. A. Atoomenergie Haar Toepass.; 14: 193-203 (1972). (In Dutch). From Conference on nuclear energy; Petten, Netherlands (30 May 1972). See CONF-720555.

NETHERLANDS - nuclear power development in, survey

REACTOR FUELS - development in Netherlands

REACTORS, BREEDER - development of liquid metal cooled fast, in Netherlands

REACTORS, FAST - development of liquid metal cooled breeder, in Netherlands

REACTORS, FLUID-FUELED - development of aqueous suspension, in Netherlands

REACTORS, LIQUID METAL-COOLED - development of fast breeder, in Netherlands

REACTORS, POWER; THERMONUCLEAR REACTORS - development in Netherlands

- 1004 27:2037 (DOCKET-50016--173) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Information on Leak Detected September 22, 1972 in No. 1 Steam Generator. (Power Reactor Development Co., Detroit, Mich.). 25 Oct 1972. 2p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - steam generator for, additional data on tube leak in

1005

27:2160 (LA--3709) QUARTERLY STATUS REPORT ON ADVANCED REACTOR TECHNOLOGY (ART) FOR PERIOD ENDING APRIL 30, 1967. PART II. (Los Alamos Scientific Lab., N. Mex.). May 1967. Contract W-7405-eng-36. 7p. Dep. NTIS. Declassified 26 Oct 1972.

ALUMINUM OXIDES - fabrication of insulators of, description of
 ELECTRIC INSULATORS - fabrication of yttrium oxide (Y_2O_3) and aluminum oxide, (Al_2O_3), description of
 HEAT PIPES - use for cooling thermionic reactors, feasibility of
 LOS ALAMOS MOLTEN PLUTONIUM REACTOR EXPERIMENT - conversion to thermionic fuel element test facility, evaluation of
 MOLYBDENUM ALLOYS AND SYSTEMS - Mo-- UO_2 , fabrication of cermet fuel pins of, parameters of
 REACTOR FUEL ELEMENTS - fabrication of molybdenum--uranium oxide (UO_2) cermet pin, parameters of
 REACTORS, THERMIONIC - cooling system for, feasibility of use of heat pipes for
 SYSTEMS FOR NUCLEAR AUXILIARY POWER (SNAP-8) - core replacement with thermionic fuel elements, feasibility of
 URANIUM OXIDES UO_2 - Mo-- UO_2 , fabrication of cermet fuel pins of, parameters of
 YTTRIUM OXIDES - fabrication of insulators of, description of

1006

27:2164 (LA--4232) QUARTERLY STATUS REPORT ON THE SPACE ELECTRIC POWER R AND D PROGRAM FOR THE PERIOD ENDING JULY 31, 1969. (Los Alamos Scientific Lab., N. Mex.). 21 Aug 1969. Contract W-7405-eng-36. 19p. Dep. NTIS. Declassified 26 Oct 1972.

ALUMINUM OXIDES - radiation effects on electric insulators of, fast neutron, (T)
 EXPERIMENTAL BREEDER REACTOR-II - neutron fluence in, determination of fast and thermal
 LAMINATES - fabrication of stress free niobium--Lucalox--niobium bonded trilayer insulators, method for
 LAMINATES - properties of niobium--Lucalox--niobium bonded trilayer insulators, summary of physical
 MOLYBDENUM ALLOYS AND SYSTEMS - Mo-- UO_2 , fabrication of coated and uncoated fuel pins of, methods for
 NEUTRONS, FAST - fluence limits for thermionic reactors, (T)
 NEUTRONS, FAST; NEUTRONS, THERMAL - fluence measurements in fast reactors, methods for
 NIOBIUM - fabrication of stress free Lucalox ceramic laminates with, methods for
 NIOBIUM - properties of laminates with Lucalox ceramics and, summary of physical
 REACTOR FUEL ELEMENTS - fabrication of molybdenum--uranium oxide (UO_2) pin, methods for
 REACTORS, THERMIONIC - electric insulators in, radiation effects in aluminum oxide, fast neutron, (T)
 REACTORS, THERMIONIC - physics calculations for
 REACTORS, THERMIONIC - control of zirconium hydride moderated, methods for
 URANIUM OXIDES UO_2 - Mo-- UO_2 , fabrication of coated and uncoated fuel pins of, methods for

1007

27:2181 (ANL--7910, pp 337-426) EXPERIMENTAL TECHNIQUES AND FACILITIES. Jan 1972. In Applied Physics Division annual report, July 1, 1970 to June 30, 1971.

ARGONNE FAST SOURCE REACTOR - relocation of, modifications following
 BERYLLIUM - neutron yields from thick targets of, irradiated with deuterons and protons, (E)
 CRITICAL ASSEMBLIES - neutron spectra measurements in ZPR-6, time-of-flight facility for
 CRITICAL ASSEMBLIES - neutron spectra measurement facility in ZPR-6, on-line detection systems for
 CRITICAL ASSEMBLIES - noise analysis in ZPPR, polarity correlation system for
 CRITICAL ASSEMBLIES - neutron reaction rate measurements in ZPR-6 and ZPR-9, real-time counting techniques for
 CRITICAL ASSEMBLIES - data acquisition systems for ZPR-6 and ZPR-9, operation of on-line
 CRITICAL ASSEMBLIES - power measurements in ZPPR, remote controlled electrometer system for
 CRITICAL ASSEMBLIES - Doppler reactivity measurements in ZPPR, dual heater temperature control system for
 CRITICAL ASSEMBLIES - containment system for ZPPR, testing of sand filter in, (E)
 CRITICAL ASSEMBLIES - neutron dosimetry at ZPR-6 and ZPR-9, use of solid state track recorders for fast
 CRITICAL ASSEMBLIES - shields for ZPR-9 Assembly 27, fast neutron dosimetry of movable personnel, (E)
 DATA ACQUISITION SYSTEMS - controllers for computer-based, operation of CAMAC crate
 DATA ACQUISITION SYSTEMS - operation of on-line, for fast critical assemblies
 ELECTROMETERS - performance of remote controlled, for reactor power measurements
 LITHIUM - neutron yields from thick targets of, irradiated with deuterons and protons, (E)
 NEUTRON CROSS SECTIONS - measurement at Fast Neutron Generator facility, equipment for time-of-flight
 NEUTRON SOURCES - equipment at Fast Neutron Generator facility for time-of-flight measurements
 NEUTRONS - spectra measurements in pulsed critical assemblies, time-of-flight method for
 NEUTRONS - yields from beryllium and lithium thick targets irradiated with deuterons and

protons, (E)
 NEUTRONS, DELAYED - spectra measurements facility for
 NEUTRONS, FAST - scattering measurements with, time-of-flight system for
 RADIATION DETECTORS, DIELECTRIC TRACK - counting of fission, accuracy of automatic
 RADIATION DETECTORS, FISSION CHAMBER - performance for fast reactor absolute fission and
 neutron capture rate measurements, (E)
 RADIATION DETECTORS, HODOSCOPE - development of fast neutron, for reactor fuel transient
 movement detection
 RADIATION DETECTORS, IONIZATION CHAMBER - performance of boron filled, for neutron
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 RADIATION DETECTORS, SCINTILLATION (GASEOUS) - performance of high pressure helium-4, for
 MeV neutron time-of-flight measurements, (E)
 RADIATION DETECTORS, SCINTILLATION (SOLID) - performance of proton recoil, for neutron
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 RADIATION DETECTORS, SCINTILLATION (SOLID) - calibration of proton recoil, use of
 monoenergetic neutrons for
 RADIATION DETECTORS, SEMICONDUCTOR (GERMANIUM) - performance of Ge(Li), for fast neutron
 flux measurements, (E)
 RADIATION DETECTORS, SEMICONDUCTOR (GERMANIUM) - calibration of Ge(Li), for small
 source-to-detector distances
 RADIATION DOSIMETERS, THERMOLUMINESCENT - gamma ray energy response of ^7LiF , errors in,
 (E/T)
 RADIATION DOSIMETERS, THERMOLUMINESCENT - performance for γ heating measurements in fast
 reactors, (E/T)
 REACTOR SAFETY EXPERIMENTS - fuel motion in TREAT, fast neutron hodoscope for detection of
 REACTORS - physics parameters of, techniques and facilities for measurement of
 REACTORS - noise analysis in, computer method for polarity cross correlation
 REACTORS, FAST - noise analysis in, polarity correlation system for
 REACTORS, FAST - gamma radiation heating in, thermoluminescent materials and techniques
 for determination of, (E/T)

- 1008 27:2189 STATUS OF THE FFTF PROJECT. Jacobi, W. M.; Weber, S. A. (Westinghouse Electric Corp., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: Suppl. No. 2, 10-11(1972). From Conference on nuclear power for tomorrow; Atlantic City, NJ. (22 Aug 1972). See CONF-720817.

FAST FLUX TEST FACILITY - construction of, status of

- 1009 27:2206 SIGNIFICANCE OF APPLIED MECHANICS IN DESIGNING THE FAST TEST REACTOR. Waymire, G. R. (WADCO Corp., Richland, Wash.). Contract AT(45-1)-2170. Nucl. Eng. Des.; 19: No. 1, 119-38(1972). From 1. international conference on structural mechanics in reactor technology; Berlin, Germany (20 Sep 1971). See CONF-710903--(Vol.19, No.1).

FAST TEST REACTOR - design of, significance of applied mechanics in

- 1010 27:2217 (ANL--7910, pp 427-521) REACTOR COMPUTATION METHODS AND THEORY. Jan 1972. In Applied Physics Division annual report, July 1, 1970 to June 30, 1971.

CRITICAL ASSEMBLIES - physics parameters of ZPPR Assembly 2, VIM-1 Monte Carlo code analysis of, (E/T)
 NEUTRON CROSS SECTIONS - calculation of, development of MC² code for
 NEUTRON CROSS SECTIONS - libraries of, ETDE-2 code for processing ENDF/B
 NEUTRON CROSS SECTIONS - generation of, development of computer programs for statistical
 NEUTRONS - spectra in fast reactors, spectral synthesis calculations of space and time dependent
 NEUTRONS - scattering in fast reactors, effects of anisotropy on elastic, (T)
 REACTORS - physics of, computation methods and theory for
 REACTORS - physics calculations for, development of Argonne Reactor Computation system for
 REACTORS - physics calculations for, variational field theory for
 REACTORS - transients in, one-dimensional space-time kinetics calculations of
 REACTORS - kinetics calculations for, algorithm for two-dimensional space-time point
 REACTORS - kinetics of near-critical, external source effects on acceleration calculations of
 REACTORS, FAST - neutron spectra in, spectral synthesis calculations of space and time dependent
 REACTORS, FAST - physics calculations for, single-channel continuous-trial-function
 REACTORS, FAST - neutron resonance integrals for, methods for evaluation of
 REACTORS, FAST - neutron cross sections for, effects of wide-scattering resonances on multigroup, (T)
 REACTORS, FAST - neutron scattering in, effects of anisotropy on elastic, (T)
 REACTORS, FAST - physics calculations for, generalized perturbation methods for

- 1011 27:2490 (FRNC-CONF--44) PUMPING OF SODIUM: PROBLEMS ENCOUNTERED IN MECHANICAL PUMPS. Guer, M. (Societe d'Exploitation des Matériels Hispano-Suiza, Bois-Colombes (France)); Guilton, P. 1972. 6p. (In French). (CONF-720648--7). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).
- PUMPS (LIQUID METAL) - design and performance of sodium, for reactors
 REACTORS, LIQUID METAL-COOLED - pumps for sodium-cooled, design and performance of
 SODIUM - pumps for reactor coolant, design and performance of
- 1012 27:2632 RESEARCH AND DEVELOPMENT OF IN-CORE INSTRUMENTS FOR SODIUM COOLED FAST REACTORS. Ohgushi, Kozo; Hayakawa, Shigeru; Hanamiya, Ikuo (Fuji Electric Co. Ltd., Tokyo). Fuji Jiho; 45: No. 2, 257-63(Feb 1972). (In Japanese).
- FLOWMETERS - development of in-core eddy current, for sodium cooled fast reactor
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - instrumentation for, development of
- 1013 27:2873 SAMPLE PREPARATION AND EQUIPMENT PROBLEMS ASSOCIATED WITH RECYCLED, PURIFIED ATMOSPHERES. Bender, John S. (Los Alamos Scientific Lab., N. Mex.). pp 27-30 of Proceedings of the Fourth Annual Technical Meeting. /McCall, James L. (ed.). Northglenn, Colo.; International Microstructural Analysis Society, Inc. (1972). From 4. annual meeting of the International Metallographic Society; Denver, Colo. (21 Sep 1971). See CONF-710902.
- HOT CELLS - description for metallographic preparation of LMFBR recycled fuel samples
 LIQUID METAL FAST BREEDER REACTOR - fuels for, equipment and methods for preparing metallographic samples of recycled
- 1014 27:3019 (CONF-720445--), pp 16-26) CASK DESIGN FOR SPENT SNR FUEL ELEMENTS. Christ, R. (Transnuclear GmbH, Wolfgang, Ger.). Nov 1972. From Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's; Rome, Italy (26 Apr 1972). In Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's, Rome, 26--28 April 1972.
- REACTOR FUEL ELEMENTS - shipping of spent SNR, evaluation of LWR cask technology for designing containers for
 SHIELDED CONTAINERS - design for shipping spent SNR fuel elements, evaluation of LWR cask technology for
 SHIPPING - containers for spent SNR fuel element, evaluation of LWR cask technology for designing
 SNR REACTOR - fuel element shipping from, evaluation of LWR cask technology for designing casks for spent
- 1015 27:3020 (CONF-720445--), pp 27-32) HANDLING AND LOADING OF IRRADIATED SNR-300 ELEMENTS. Wagner, J. (INTERATOM, Bensberg, Ger.). Nov 1972. From Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's; Rome, Italy (26 Apr 1972). In Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's, Rome, 26--28 April 1972.
- REACTOR FUEL ELEMENTS - shipping of spent SNR-300, design, loading, and handling of containers for
 SHIELDED CONTAINERS - design criteria for, for shipping spent SNR-300 fuel elements
 SHIELDED CONTAINERS - handling and loading of, for shipping spent SNR-300 fuel elements
 SHIPPING - containers for spent SNR-300 fuel element, design, handling, and loading of
 SNR REACTOR - fuel element shipping from, design and handling of containers for spent
- 1016 27:3022 (CONF-720445--), pp 44-67) FRENCH EXPERIENCE IN TRANSPORTING IRRADIATED FAST REACTOR FUEL ELEMENTS. Labrousse, M. (CEN, Fontenay-aux-Roses, France). Nov 1972. From Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's; Rome, Italy (26 Apr 1972). In Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's, Rome, 26--28 April 1972.
- CADARACHE REACTORS (RAPSDIE) - fuel element shipping from, equipment and methods for spent
 REACTOR FUEL ELEMENTS - shipping of spent fast, in France, equipment and methods for
 SHIELDED CONTAINERS - design and performance of, for shipping Rapsodie reactor spent fuel elements
 SHIPPING - equipment and methods for Rapsodie Reactor spent fuel element

- 1017 27:3024 (CONF-720445-- , pp 72-4) EXPERIMENTAL TRANSPORT OF DUMMY FUEL SUBASSEMBLIES FOR 'JOYO.' Uchida, I. (Power Reactor and Nuclear Fuel Development Corp., Tokyo). Nov 1972. From Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's; Rome, Italy (26 Apr 1972). In Specialists' meeting on handling and transportation of spent fuel elements for LMFBR's, Rome, 26--28 April 1972.
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel subassemblies for, effects of truck transport on deformation of, (E)
 REACTOR FUEL ELEMENTS - deformation of unirradiated Joyo, during track transport, (E)
 SHIPPING - effects of truck, on deformation of Joyo Reactor fuel subassemblies, (E)
- 1018 27:4387 REALIZATION OF THE FAST BREEDER REACTOR IS NOW A FACT. THE ORDER FOR THIS BELGIAN--GERMAN--DUTCH PROJECT WILL BE PLACED DURING THIS YEAR. Sandscheper, G. VDI (Ver. Deut. Ing.) Nachr.; 26: No. 14, 2(1972). (In German).
- SNR REACTOR - development of, summary of
- 1019 27:4391 IMPROVEMENTS IN OR RELATING TO NUCLEAR REACTORS. Ackroyd, Ronald Tunstall; Perks, Maurice Arthur (to United Kingdom Atomic Energy Authority). British Patent 1,279,084. 21 Jun 1972. Filed 3 Nov 1969.
- REACTORS, BREEDER - core configuration for liquid metal cooled fast, with alternating cylindrical fissile and breeder regions
 REACTORS, FAST - core configuration for liquid metal cooled breeder, with alternating cylindrical fissile and breeder regions
 REACTORS, LIQUID METAL-COOLED - core configuration for fast breeder, with alternating cylindrical fissile and breeder regions
- 1020 27:4393 BREEDER REACTOR PROTOTYPE WILL BE CONSTRUCTED IN KALKAR. STATUS REPORT. Energ. Tech.; 24: No. 4, 142-3(1972). (In German).
- SNR REACTOR - development of, status of
- 1021 27:4396 (ANL--7967) PARAMETER IDENTIFICATION IN NUCLEAR REACTOR SYSTEMS. Roman, W. S. (Argonne National Lab., Ill.). Sep 1972. Contract W-31-109-eng-38. 93p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR; REACTORS - parameter identification in, development of algorithms for updating original estimates of
- 1022 27:4404 INFLUENCE OF VARIOUS HYDRODYNAMIC MODELS ON THE CALCULATION OF POWER LEVEL AND TEMPERATURE RESPONSE FOR MILD TRANSIENTS IN FAST ASSEMBLIES. Peddicord, Kenneth Lee. Urbana, Ill.; Univ. of Illinois (1972). 139p. University Microfilms Order No. 72-19,903. Thesis.
- REACTORS, BREEDER; REACTORS, FAST - transients in liquid metal cooled, effects of coolant flow model on power level and temperature response for mild, (T)
 REACTORS, LIQUID METAL-COOLED - transients in fast breeder, effects of coolant flow model on power level and temperature response for mild, (T)
- 1023 27:4406 STAGNANT FLUID DUE TO LOCAL FLOW BLOCKAGE. Ohtsubo, Akira (Power Reactor and Nuclear Fuel Development Corp., Tokyo); Uruwashii, Shinichi. J. Nucl. Sci. Technol. (Tokyo); 9: No. 7, 433-4(Jul 1972).
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling channel blockage in sodium cooled, characteristics of stagnant region behind local, (E)
- 1024 27:4410 (CONF-721018--4) LMFBR RADIATION TRANSPORT METHODS DEVELOPMENT. Mynatt, F. R.; Gritzner, M. L.; Williams, L. R.; Clifford, C. E. (Oak Ridge National Lab., Tenn.). 1972. 19p. Dep. NTIS. From 4. international conference on reactor shielding; Paris, France (9 Oct 1972).
- FAST TEST REACTOR - shielding for, calculation of neutron and gamma dose rates through lead
 GAMMA RADIATION; LIQUID METAL FAST BREEDER REACTOR; NEUTRONS, FAST - shielding for,

calculation methods for development of
SHIELDING - development of fast neutrons, calculation methods for

- 1025 27:4411 (RDT-E--2-3-T) REACTOR VESSEL FOR LIQUID METAL SERVICE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Oct 1972. 27p. RSO.
- PRESSURE VESSELS - standards for liquid metal cooled reactor, RDT
REACTORS, LIQUID METAL-COOLED - pressure vessels for, RDT standards for
STANDARDS - reactor vessel for liquid metal service
- 1026 27:4416 EQUIPMENT FOR SUPPORTING A NUCLEAR REACTOR VESSEL. Costes, Didier (to Commissariat a l'Energie Atomique). French Patent 2,096,874. 3 Mar 1972. Filed 9 Jul 1970. (In French).
- PRESSURE VESSELS - supporting structure for underground fast sodium cooled reactor, design of
REACTOR CONTAINMENT SYSTEMS - supporting structure for underground, design for fast sodium cooled reactor
REACTORS, FAST - pressure vessels for sodium cooled, design of structure for supporting underground
REACTORS, LIQUID METAL-COOLED - pressure vessels for fast, design of structure for supporting underground
- 1027 27:4419 HEAT TRANSFER IN LIQUID-METAL COOLED FAST REACTORS. Sesonske, Alexander (Purdue Univ., Lafayette, Ind.). Advan. Nucl. Sci. Technol.; 6: 175-201(1972).
- REACTORS, FAST - heat transfer in liquid metal cooled, review of problems in
REACTORS, LIQUID METAL-COOLED - heat transfer in fast, review of problems in
- 1028 27:4423 MAXIMUM SUPERHEATING OF SODIUM DURING EFFERVESCENCE. Leonov, A. I.; Prisnyakov, V. F. (Dnepropetrovsk State Univ., USSR). High Temp. (USSR) (Engl. Transl.); 10: No. 1, 124-7(1972). Translated from Teplofiz. Vys. Temp.; 10: No. 1, 149-52(1972).
- REACTORS, FAST - coolant boiling in, maximum superheating of liquid sodium during, (T)
REACTORS, LIQUID METAL-COOLED - coolant boiling in fast, maximum superheating of liquid sodium during, (T)
SODIUM - superheating of boiling liquid, calculation of maximum, (T)
- 1029 27:4425 APPARATUS FOR HEAT EXCHANGE BETWEEN LIQUID METALS. (to Societe Babcock--Atlantique). French Patent 2,096,970. 3 Mar 1972. Filed 22 Jul 1970. (In French).
- HEAT EXCHANGERS - description of in vessel, for sodium cooled reactor
REACTORS, LIQUID METAL-COOLED - heat exchangers for, description of in-vessel
- 1030 27:4430 FLOW DETERMINATIONS IN THE DEAD WATER BEHIND LOCAL BLOCKAGES IN COOLING CHANNELS OF ROD BUNDLES. Basmer, P.; Kirsch, D.; Schultheiss, G. F. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt., Atomtech.; 17: No. 8, 416-18(Aug 1972). (In German).
- REACTOR FUEL ELEMENTS - coolant flow patterns behind blockages in hexagonal rod bundles, (E)
SNR REACTOR - fuel rod bundles for, coolant flow patterns behind blockages in, (E)
- 1031 27:4432 OUTLINE OF THE JAPAN EXPERIMENTAL FAST REACTOR 'JOYO'. 1. FUEL HANDLING FACILITY. Kinoshita, M.; Ueno, M.; Morishita, K. (Fuji Electric Co. Ltd., Tokyo). Fuji Jiho; 45: No. 3, 344-50(Mar 1972). (In Japanese).
- JAPANESE EXPERIMENTAL FAST REACTOR - fuel element handling system for, development of
REACTOR FUEL ELEMENTS - handling of Joyo spent, development of facility for
- 1032 27:4439 OUTLINE OF THE JAPAN EXPERIMENTAL FAST REACTOR 'JOYO'. 2. RADIATION MONITORING AND MISCELLANEOUS FACILITIES. Kinoshita, M.; Maekawa, Y.; Etoh, F.; Kobayashi,

K.; Morishita, K. (Fuji Electric Co. Ltd., Tokyo). Fuji Jiho; 45: No. 4, 419-27(Apr 1972). (In Japanese).

JAPANESE EXPERIMENTAL FAST REACTOR - radioactivity monitoring at, equipment and methods for

JAPANESE EXPERIMENTAL FAST REACTOR - electric power to, system for supplying

JAPANESE EXPERIMENTAL FAST REACTOR - waste processing at, equipment for

- 1033 27:4445 (CONF-721109--2) INTERPOLATIONAL SCHEME FOR MONITORING THE REFUELING OPERATIONS IN AN LMFBR. Buhl, A. R.; Rhoades, W. A.; Bartine, D. E. (Oak Ridge National Lab., Tenn.). [nd]. 5p. Dep. NTIS. From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972).

REACTORS, BREEDER; REACTORS, FAST - refueling operation in liquid metal cooled, interpolational scheme for monitoring of

REACTORS, LIQUID METAL-COOLED - refueling operation in fast breeder, interpolational scheme for monitoring of

- 1034 27:4446 (ORNL-NSIC--74) CALCULATION OF DOSES DUE TO ACCIDENTALLY RELEASED PLUTONIUM FROM AN LMFBR. Fish, B. R.; Keilholtz, G. W.; Snyder, W. S.; Swisher, S. D. (Oak Ridge National Lab., Tenn.). Nov 1972. Contract W-7405-eng-26. 123p. Dep. NTIS.

PLUTONIUM - release from liquid metal cooled fast breeder reactors, calculated doses from accidental

PLUTONIUM OXIDES - metabolism of, models of

REACTOR CONTAINMENT STRUCTURES - aerosol behavior in liquid metal fast breeder, following accidents

REACTORS, BREEDER - accidents in liquid metal cooled fast, calculated doses from plutonium release during

REACTORS, FAST - accidents in liquid metal cooled breeder, calculated doses from plutonium release during

REACTORS, LIQUID METAL-COOLED - accidents in fast breeder, calculated doses from plutonium release during

- 1035 27:4449 CONSIDERATION ON THE GROWTH OF A SINGLE SODIUM BUBBLE IN A FBR CHANNEL. Takahashi, Ryoichi (Tokyo Inst. of Tech.); Matsuoka, Yoshinori; Shindo, Masuo; Yokozawa, Hiroyuki. Bull. Tokyo Inst. Technol. (Engl. Ed.); No. 109, 33-9(Mar 1972).

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling channels of, growth of single sodium bubbles in, (T)

- 1036 27:4452 ANALYSIS OF INERTIAL CONTRIBUTION OF THE FLUID IN A PLENUM TO A RAPID COOLANT-EXPULSION PROCESS IN A LIQUID METAL FAST BREEDER REACTOR SINGLE-SUBASSEMBLY ACCIDENT. Chawla, T. C. (Argonne National Lab., Ill.). Nucl. Sci. Eng.; 48: No. 4, 397-402(Aug 1972).

FAST TEST REACTOR; REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED coolant expulsion process in single-subassembly accidents in sodium cooled, effects of pressure distribution in plenum on, (T)

- 1037 27:4482 (DOCKET-50016--149) ENRICO FERMI ATOMIC POWER PLANT. Technical Specification, Change No. 32 allowed (Division of Reactor Licensing (AEC), Washington, D. C.). 23 Feb 1972. 1p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - cooling system for, revised testing schedule for liquid sodium siphon lines of

- 1038 27:4483 (DOCKET-50016--174) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for August 1972. (Power Reactor Development Co., Detroit, Mich.). 15 Nov 1972. 13p. (PRDC-EF--108). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during August 1972

FERMI FAST BREEDER REACTOR - maintenance during August 1972

FERMI FAST BREEDER REACTOR - testing program during August 1972

- 1039 27:4715 (CNLM--4076) USE OF Cb-1 Zr ALLOY IN THE STRUCTURAL DESIGN OF THE LCRE. Wray, Ronald (ed.) (Pratt and Whitney Aircraft, Middletown, Conn. Connecticut Advanced Nuclear Engineering Lab.). 8 Jun 1962. Contract AT(30-1)-2789. 67p. Dep. NTIS. Declassified 31 Oct 1972.
- LITHIUM-COOLED REACTOR EXPERIMENT - structural materials in, evaluation of
niobium--zirconium
NIOBIUM ALLOYS AND SYSTEMS - Nb--Zr, stress analysis of reactor components of
PRESSURE VESSELS - stress analysis of niobium--zirconium aircraft reactor
ZIRCONIUM ALLOYS AND SYSTEMS - Nb--Zr, stress analysis of reactor components of
- 1040 27:4726 (PWAC--200) ENGINEERING DESIGN STATUS REPORT ON THE PWAR-5A TEST REACTOR, MARCH 15, 1958. (Pratt and Whitney Aircraft, Middletown, Conn.). [nd]. 365p. Dep. NTIS. Declassified 31 Oct 1972.
- REACTORS, AIRCRAFT - design of PWAR-5A sodium cooled
REACTORS, LIQUID METAL-COOLED - design of PWAR-5A sodium cooled aircraft
- 1041 27:4735 (AEW-M--997) SPECTRUM MEASUREMENTS IN FAST REACTOR ASSEMBLIES. Broomfield, A. M.; Paterson, W. J.; Sanders, J. E. (Atomic Energy Establishment, Winfrith (England)). Oct 1970. 43p. (CONF-701154--1). Dep. NTIS (U. S. Sales Only). From Meeting on fast reactor spectrum measurements and their interpretation; Chicago, IL. (10 Nov 1970).
- CRITICAL ASSEMBLIES - neutron energy spectra in VERA, methods for measurement of
NEUTRONS - spectra in fast assemblies, methods for measurement of
ZEBRA REACTOR - neutron energy spectra in, methods for measurement of
- 1042 27:4737 (ANL--7471) FINAL SAFETY ANALYSIS REPORT ON THE ZERO POWER PLUTONIUM REACTOR (ZPPR) FACILITY. Lawroski, H.; Palmer, R. G.; Thalgott, F. W.; Curran, R. N.; Matlock, R. G. (Argonne National Lab., Ill.). Jun 1972. Contract W-31-109-eng-38. 148p. Dep. NTIS.
- CRITICAL ASSEMBLIES - safety analysis report for ZPPR, final
CRITICAL ASSEMBLIES - operation aspects of ZPPR, safety evaluation of
- 1043 27:4738 (ANL--7829) EBR-II MARK IIB OSCILLATOR ROD AND ITS DRIVE. Pardini, J. A.; Seim, O. S.; Thompson, W. M.; Natoce, J. T.; Hutter, E. (Argonne National Lab., Ill.). Nov 1971. Contract W-31-109-eng-38. 52p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - oscillator rod and drive for, design and operation of
Mark-2B
- 1044 27:4739 (ANL/EBR--62) EVALUATION OF THE EBR-II FUEL-HANDLING COMPLETE CIRCUIT. EBR-II Project. Haroldsen, R. O.; Curran, R. N. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Mar 1972. Contract W-31-109-Eng-38. 29p. Dep. NTIS.
- CONTROL SYSTEMS - evaluation of reactor loading machine
EXPERIMENTAL BREEDER REACTOR-II - fuel handling system for, evaluation of complete circuit
for controlling
EXPERIMENTAL BREEDER REACTOR-II - safety during fueling operation, evaluation of separate
control system to ensure
REACTOR FUELS - handling of EBR-II, evaluation of complete circuit for controlling
REACTOR LOADING MACHINES - control system for, evaluation of
- 1045 27:4742 (DOCKET-50231--126) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Proposed Change 15. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 31 Oct 1972. 27p. Dep. NTIS.
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - security system for, technical specifications
for
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - radiation monitoring program for, technical
specifications for
- 1046 27:4750 FFTF SITE AND CONSTRUCTION. Simmons, A. A. (Hanford Works, Richland, Wash.).

Nucl. Eng. Int.; 17: No. 195, 615-16(Aug 1972).

FAST FLUX TEST FACILITY - construction of, progress on

- 1047 27:4751 ROLE OF FFTF IN THE US LMFBR PROGRAMME. Shaw, M. (Atomic Energy Commission, Washington, D. C.). Nucl. Eng. Int.; 17: No. 195, 613-14(Aug 1972).

FAST FLUX TEST FACILITY - development of, role in U.S. liquid metal fast breeder reactor program of

- 1048 27:4752 FFTF REACTOR AND COOLANT SYSTEM. Werle, J. E. (Hanford Works, Richland, Wash.); McGough, C. B.; Edwards, P. A.; Selz, A. Nucl. Eng. Int.; 17: No. 195, 619-22(Aug 1972).

FAST TEST REACTOR - cooling system for, design parameters of open and closed loops in

- 1049 27:4753 FUEL AND CORE COMPONENT HANDLING. Boyd, C. L. (Hanford Works, Richland, Wash.); Harbison, S. G.; Sanders, M. K. Nucl. Eng. Int.; 17: No. 195, 623-5(Aug 1972).

FAST TEST REACTOR - fuel handling at, machines and facilities for

- 1050 27:4754 FUEL, COMPONENT DESIGN, AND TECHNOLOGY. Cerni, S.; Last, G. A. Nucl. Eng. Int.; 17: No. 195, 617-18 (Aug 1972).

FAST TEST REACTOR - fuel pins for, design of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)

- 1051 27:4761 SODIUM TECHNOLOGY. Shannon, D. W.; Wyckoff, W. R. (Hanford Works, Richland, Wash.). Nucl. Eng. Int.; 17: No. 195, 627-8(Aug 1972).

FAST FLUX TEST FACILITY - operation of, sodium technology programs for

- 1052 27:4762 INSTRUMENTATION AND CONTROL. Mitchell, J. W. (Hanford Works, Richland, Wash.); Heck, F. M. Nucl. Eng. Int.; 17: No. 195, 625-7(Aug 1972).

FAST FLUX TEST FACILITY - control systems for, design parameters of

- 1053 27:4768 MEASUREMENTS OF k-INFINITY ON ZERO-LEAKAGE ZONED SYSTEM (FCA IV). Nakano, Masafumi (Japan Atomic Energy Research Inst., Tokai). J. Nucl. Sci. Technol. (Tokyo); 9: No. 7, 395-405(Jul 1972).

CRITICAL ASSEMBLIES - multiplication factor in center zone of FCA IV, measurements of infinite, (E/T)

- 1054 27:4778 SEALED DEVICE FOR MOUNTING HEAT EXCHANGERS IN REACTORS. Vercasson, Michel (to Commissariat a l'Energie Atomique). French Patent 2,101,019. 31 Mar 1972. Filed 7 Aug 1970. (In French).

HEAT EXCHANGERS - installation in walls of sodium cooled reactor vessels, device for sealed
REACTORS, LIQUID METAL-COOLED - heat exchanger mounting in sodium cooled, sealed device for

- 1055 27:5167 FAST REACTOR FUEL PROCESSING. Ferguson, D. E.; Lotts, A. L. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 2, 597-8(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for, developmental programs for
REACTOR FUELS - reprocessing of LMFBR, developmental programs for

1056

27:5581 (ORNL--4820, pp 106-39) REACTOR DEVELOPMENT SUPPORT. Sep 1972. In Metals and Ceramics Division annual progress report for period ending June 30, 1972.

BERYLLIUM FLUORIDES - BeF_2 -- LiF -- UF_6 , corrosive effects on Hastelloy N at high temperatures
 BISMUTH - corrosive effects on materials for construction of fuel salt processing plant at 600 to 700°C, research studies on
 EXTRACTION APPARATUS - fabrication of column-type molybdenum, for separation of fission products from molten salt fuels
 FISSION PRODUCTS - effects of gaseous, on intergranular cracking of Hastelloy N
 GRAPHITE - permeability of, effects of pyrolytic carbon sealing on
 GRAPHITE - microstructure of reactor grades of, x-ray studies of
 GRAPHITE - radiation effects on microstructure and thermal conductivity of, neutron
 HASTELLOY N - corrosion by MSRE blanket and fuel salts
 HASTELLOY N - mechanical properties of, effects of gaseous tellurium on
 HASTELLOY N - mechanical properties of, effects of additive elements on
 HASTELLOY N - corrosion by steam, studies of long-term
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, research programs for development of
 LITHIUM FLUORIDES - BeF_2 -- LiF -- UF_6 , corrosive effects on Hastelloy N at high temperatures
 MOLTEN SALT BREEDER REACTOR - materials for, research progress on development of
 MOLYBDENUM - fabrication of extraction test stand of, for separation of fission products from fused salt fuels
 MOLYBDENUM - fabrication of components of, development of methods for
 NEUTRONS - effects on microstructure and thermal conductivity of graphite
 NICKEL 200 - mechanical properties of, effects of gaseous tellurium on
 RADIOCHEMICAL PROCESSING PLANTS - materials for fuel salt, development and testing of structural
 RADIOCHEMICAL PROCESSING PLANTS - maintenance and operation of TURF, for HTGR Program support
 RADIOCHEMICAL PROCESSING PLANTS - evaluation of commercial
 REACTOR FUELS - thermal conductivity of bonded particulate, for HTGR-type reactors
 REACTOR FUELS - fabrication of coated-particle, development of TURF remote-control pilot line for
 REACTORS, GAS-COOLED - fuel elements for, development of unclad ceramic
 REACTORS, GAS-COOLED - fuels for high-temperature, development of TURF remote-control pilot line for fabrication of
 STAINLESS STEEL - mechanical properties of Type 304, effects of gaseous tellurium on
 STEAM - corrosive effects on Hastelloy N, studies of long-term
 STEEL - properties of heavy-section Type A533, research programs on
 STEEL - cracking of low-alloy, methods for testing of
 SULFUR - effects of gaseous, on intergranular cracking of Hastelloy N
 TELLURIUM - effects of gaseous, on mechanical properties of Hastelloy N, Nickel 200, and Type 304 stainless steel
 THORIUM CARBIDES - ThC -- UC , preparation of coated-particle fuels of, development of methods for
 THORIUM OXIDES ThO_2 - ThO_2 -- UO_2 , preparation of coated-particle fuels of, development of methods for
 URANIUM CARBIDES - ThC -- UC , preparation of coated-particle fuels of, development of methods for
 URANIUM FLUORIDES UF_6 - BeF_2 -- LiF -- UF_6 , corrosive effects on Hastelloy N at high temperatures
 URANIUM OXIDES UO_2 - ThO_2 -- UO_2 , preparation of coated-particle fuels of, development of methods for

1057

27:5649 (ORNL--4820, pp 38-95) FAST REACTOR TECHNOLOGY. Sep 1972. In Metals and Ceramics Division annual progress report for period ending June 30, 1972.

BOILERS - materials for, high-temperature compatibility of
 BORON CARBIDES - radiation effects on defect distribution in, fast neutron
 COMPUTER PROGRAMS - FMODEL, for evaluation of fuel performance
 COMPUTER PROGRAMS - CASDAR and ORIGEN, for calculation of fuel depletion rates
 CROLOY - tensile properties of niobium-stabilized
 CROLOY - mechanical properties of weldments of, at high temperatures
 EDDY CURRENT TESTING - methods for reactor materials, development of
 FAST TEST REACTOR - control elements and fuel elements for, development and testing of materials for
 HEAT-RESISTING ALLOYS AND METALS - stress corrosion by chlorides at high temperatures, data tabulation on
 INCOLOY 800 - properties for use in LMFBR steam generator, evaluation of
 LIQUID METAL FAST BREEDER REACTOR - control elements and fuel elements for, development and testing of materials for
 NEUTRONS, FAST - effects on defect distribution in boron carbide
 NEUTRONS, FAST - effects on microstructure of tantalum
 NEUTRONS, FAST - effects on properties of plutonium dioxide--uranium dioxide fuels
 NEUTRONS, FAST - effects on swelling of Types 304 and 316 stainless steel

NEUTRONS, FAST - effects on properties of titanium-modified Type 316 stainless steel
 PENETRANT TESTING - methods for reactor materials, development of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of fuels of, research programs on
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation effects on fuels of, fast neutron
 RADIOGRAPHY, INDUSTRIAL - methods for reactor materials, development of
 REACTOR FUEL ELEMENTS - radiation effects on clad--fuel interactions in oxide, relations with burnup
 REACTOR FUELS - development and testing of advanced ceramic
 STAINLESS STEEL - properties for use as cladding for fast breeder reactor fuels
 STAINLESS STEEL - welding of Types 304 and 316, effects on mechanical properties of
 STAINLESS STEEL - radiation effects on swelling of Types 304 and 316, fast neutron
 STAINLESS STEEL - radiation effects on titanium-modified Type 316, fast neutron
 STAINLESS STEEL - mechanical properties of Type 304, at high temperatures
 TANTALUM - radiation effects on microstructure of, fast neutron
 ULTRASONIC TESTING - methods for reactor materials, development of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of fuels of, research programs on
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation effects on fuels of, fast neutron

- 1058 27:5685 MECHANICAL AND STRUCTURAL PROPERTIES OF TYPE 316 STAINLESS-STEEL LMFBR CLADDING. Padden, T. R.; Thomas, K. C.; Tarby, E. J. (Westinghouse Electric Corp., Pittsburgh). Trans. Amer. Nucl. Soc.; 15: No. 2, 771-3(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, properties of Type 316 stainless steel cladding for
 STAINLESS STEEL - properties of fuel cladding of Type 316, mechanical and structural

- 1059 27:5712 ASSESSMENT OF ROOM-TEMPERATURE FRACTURE OF EBR-II CONTROL ROD THIMBLE. Miller, S. C.; Flinn, J. E.; Franklin, D. G. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 726-7(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - control rod thimbles for, effects of fast neutrons on Type 304 stainless steel
 NEUTRONS, FAST - effects on microstructure of control rod thimbles of Type 316 stainless steel
 STAINLESS STEEL - radiation effects on control rod thimbles of Type 304, fast neutron

- 1060 27:5716 EBR-II MATERIALS-SURVEILLANCE PROGRAM. Greenberg, Sherman (Argonne National Lab., Ill.); Strain, R. V.; Ebersole, E. R. Trans. Amer. Nucl. Soc.; 15: No. 2, 744-5(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - materials for, radiation effects surveillance program on
 HEAT-RESISTING ALLOYS AND METALS - radiation effects on, for EBR-II, surveillance program on

- 1061 27:5718 DUCTILITY OF SOLID LOADED IRRADIATED CLADDING. Franklin, D. G.; Miller, S. C. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 773-4(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, radiation effects on stainless steel cladding for driver-type
 NEUTRONS, FAST - effects on ductility of Type 304 stainless steel fuel cladding
 STAINLESS STEEL - radiation effects on ductility of fuel cladding of Type 304L, fast neutron

- 1062 27:6901 ANALOGY BETWEEN THERMAL DIFFUSION AND CONTINUOUS SLOWING DOWN OF NEUTRONS AND ITS APPLICATIONS. Kalimullah (Univ. of Cincinnati). Trans. Amer. Nucl. Soc.; 15: No. 2, 915-16(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

NEUTRONS - thermalization in fast reactors, comparison of steady state diffusion and Laplace transformed Fermi age equation for, (T)
 REACTORS, FAST - neutron thermalization in, comparison of steady state diffusion and Laplace transformed Fermi age equation for, (T)

- 1063 27:6907 IMPROVED REACTIVITY TABLE MODEL FOR LMFBR DYNAMICS. Stacey, W. M. Jr. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 922(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTIVITY - changes in liquid metal cooled fast breeder reactors, model for transient configurational
REACTORS, BREEDER; REACTORS, FAST - reactivity of liquid metal cooled, model for table of transient configurational changes of
REACTORS, LIQUID METAL-COOLED - reactivity of, model for table of transient configurational changes of
- 1064 27:6908 FLOW OSCILLATION EXPERIMENTS IN SEFOR. Lu, Y. S. (General Electric Co., Sunnyvale, Calif.); Noble, L. D. Trans. Amer. Nucl. Soc.; 15: No. 2, 923-4(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTIVITY - feedback in fast reactor cores, effects of coolant plus oscillations in
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - core of, effects of coolant flow oscillations on reactivity feedback in
- 1065 27:6910 PERFORMANCE CHARACTERISTICS FOR OPTIMIZED CORE MODULE OF LMFBR. Minakuchi, S. (Iowa State Univ., Ames). Trans. Amer. Nucl. Soc.; 15: No. 2, 932-3 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core for sodium cooled, geometric optimization of, (T)
- 1066 27:6911 CALCULATIONS FOR FISSION PRODUCT POISONING IN FAST REACTORS. Berk, S. E.; Maynard, C. W. (Univ. of Wisconsin, Madison). Trans. Amer. Nucl. Soc.; 15: No. 2, 938(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- FISSION PRODUCTS - effects on breeding ratios of fast reactors, time-dependent model for
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - breeding ratios for sodium cooled, time-dependent model for fission product poisoning effects on
- 1067 27:6912 NEUTRONICS CHARACTERISTICS OF FFTF CORE USING CLEAN AND LWR-GRADE Pu FUEL. Calamai, G. J. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 952-3(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- FAST TEST REACTOR - core physics of, effects of plutonium grade on
PLUTONIUM - use in fast reactors of clean and light water reactor grade, effects on core physics of
- 1068 27:6917 BOILING DETECTION IN THE 20- TO 50-kHz FREQUENCY RANGE. Dunn, M. J.; Ohanian, M. J. (Univ. of Florida, Gainesville). Trans. Amer. Nucl. Soc.; 15: No. 2, 872-3 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- BOILING - detection by acoustics in liquid sodium, performance at 20 to 50 kHz of, (E)
REACTORS, BREEDER; REACTORS, FAST - boiling detection in liquid metal cooled, performance at 20 to 50 kHz of acoustic, (E)
REACTORS, LIQUID METAL-COOLED - boiling detection in fast breeder, performance at 20 to 50 kHz of acoustic, (E)
SODIUM - boiling detection in liquid, performance at 20 to 50 kHz of acoustic
- 1069 27:6920 SEALING SYSTEM FOR REACTOR COOLANT CIRCULATOR. Koga, T. (Nippon Sealol Co. Ltd., Tokyo). Genshiryoku Kogyo; 18: No. 6, 46-51(Jun 1972). (In Japanese).
- HEAT TRANSFER SYSTEMS - seals for reactor, development in Japan of axial
PUMPS - seals for water cooled reactor coolant, development in Japan of axial
PUMPS (LIQUID METAL) - seals for, development in Japan of axial
SEALS AND GLANDS - development in Japan of axial, for reactor coolant pumps

- 1070 27:6921 DEVELOPMENT OF MECHANICAL-TYPE SODIUM PUMPS. Taka, Shusei (Ebara Mfg. Co. Ltd., Tokyo). Ehara Jiho; No. 79, 20-6(Mar 1972). (In Japanese).

PUMPS (LIQUID METAL) - development in Japan of mechanical type
SODIUM - pumps for liquid, development in Japan of mechanical type

- 1071 27:6926 PREDICTION OF CARBON TRANSFER IN LMFBRs FROM EXPERIMENTAL MEASUREMENTS. Shiels, S. A.; Bagnall, C. A.; Schrock, S. L. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 746 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CARBON - mass transfer in liquid sodium, method for prediction of
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems of,
prediction of carbon transfer in sodium
REACTORS, POWER - cooling system of liquid metal fast breeder, prediction of carbon
transfer in sodium
SODIUM - carbon transfer in liquid, method for prediction of

- 1072 27:6927 SIMULATION EXPERIMENTS ON HEAT TRANSFER FROM FAST REACTOR FUEL DEBRIS. Gabor, J. D.; Hesson, J. C.; Baker, L. Jr.; Cassulo, J. C. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 836(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTORS, BREEDER; REACTORS, FAST - meltdown accidents in liquid metal cooled, simulation
of heat transfer from fuel debris following
REACTORS, LIQUID METAL-COOLED - meltdown accidents in, simulation of heat transfer from
fuel debris following
REACTORS, POWER - meltdown accidents in liquid metal cooled, simulation of heat transfer
from fuel debris following

- 1073 27:6929 DESIGN AND FLOW TESTING OF THE MODEL REACTOR SUBASSEMBLIES USED IN THE HYDRAULIC CHARACTERIZATION OF THE EBR-II. Gopalakrishnan, A. (Argonne National Lab., Ill.); McGinnis, F. D. Trans. Amer. Nucl. Soc.; 15: No. 2, 861-2(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, design and flow testing of
subassemblies of

- 1074 27:6930 DESIGN, CONSTRUCTION, AND COMMISSIONING OF THE EBR-II REACTOR HYDRAULIC TEST FACILITY. Cerchione, J. D. (Argonne National Lab., Idaho Falls, Idaho); McGinnis, F. D.; Long, P. M.; Rice, R. E.; Gopalakrishnan, A. Trans. Amer. Nucl. Soc.; 15: No. 2, 862-3(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - hydraulic test facility of, design, construction, and
commissioning of

- 1075 27:6932 (EURFNR--1026) THERMAL SIMULATION OF FUEL RODS BY INDIRECTLY ELECTRICALLY HEATED RODS. Malang, S.; Rust, K. (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Reaktorbauelemente). May 1972. 47p. (KFK--1587). Dep. NTIS. For United States--Euratom Fast Reactor Exchange Program.

REACTOR FUEL ELEMENTS - thermal simulation of sodium cooled eccentrically arranged rod,
evaluation of indirectly electrically heated rods for, (T)
REACTORS, BREEDER - fuel elements in sodium cooled fast, evaluation of indirectly
electrically heated rods for thermal simulation of, (T)
REACTORS, FAST - fuel elements in sodium cooled breeder, evaluation of indirectly
electrically heated rods for thermal simulation of, (T)
REACTORS, LIQUID METAL-COOLED - fuel elements in fast breeder, evaluation of indirectly
electrically heated rods for thermal simulation of, (T)

- 1076 27:6933 SHIELDING OF FUEL MANIPULATION SYSTEMS FOR A SODIUM-COOLED FAST REACTOR. Tanaka, Yoshihisa (First Atomic Power Industry Group, Tokyo); Suzuki, Ikunori; Tubosaka, Akira. FAPIG (Tokyo); No. 65, 18-27(May 1972). (In Japanese).

REACTOR LOADING MACHINES - requirements for sodium cooled fast
 REACTORS, FAST - loading machines for sodium cooled, shielding of
 REACTORS, LIQUID METAL-COOLED - loading machines for fast, shielding of

- 1077 27:6938 APPLICATION OF POSTIRRADIATION DUCTILITY DATA TO FUEL ROD FAILURE LIMITS. Busboom, H. J.; Barrett, C. F.; Ring, P. J.; Spalaris, C. N. (General Electric Corp., San Jose, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 2, 738-9 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- LIQUID METAL FAST BREEDER REACTOR - fuel element cladding for, development of failure limits for Types 304 and 316 stainless steel
 REACTOR FUEL ELEMENTS - cladding for fast, development of failure limits for Types 304 and 316 stainless steel
 STAINLESS STEEL - failure under fast neutron irradiation of Types 304 and 314, development of limits for prevention of
- 1078 27:6940 LINEAR HEAT RATING FOR INCIPIENT FUEL MELTING IN UO_2 -- PuO_2 FUEL. Leggett, R. D.; Ballard, E. O.; Baker, R. B.; Horn, G. R.; Dutt, D. S. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 2, 752-3 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, linear heat rate for melting Type-316 stainless steel clad mixed plutonium oxide (PuO_2)--uranium oxide (UO_2), (E)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , melting of Type-316 stainless steel clad fast reactor fuel elements of, linear heat rate for
 REACTOR FUEL ELEMENTS - melting of Type-316 stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, linear heat rate for, (E)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , melting of Type-316 stainless steel clad fast reactor fuel elements of, linear heat rate for
- 1079 27:6942 TREAT MARK-II LOOP EXPERIMENTS ON FFTF-LIKE PINS HAVING LOCAL OVERENRICHMENT. Deitrich, L. W. (Argonne National Lab., Ill.); Agrawal, A. K.; Murphy, W. F.; (and others). Trans. Amer. Nucl. Soc.; 15: No. 2, 816 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- FAST TEST REACTOR - fuel elements for, effects on failures of enrichment variations in pin
 REACTOR FUEL ELEMENTS - failures in fast pin, effects of enrichment variations in
- 1080 27:6943 EVALUATION OF WRAPPER-CAN MELT THROUGH FOR LMFBR FUEL SUBASSEMBLIES. Pedersen, D. R.; Chawla, T. C.; van Erp, J. B. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 817-18 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- LIQUID METAL FAST BREEDER REACTOR - fuel assemblies wrapper cans in, analysis of melting of
- 1081 27:6946 POTENTIAL FAILURE OF A HEXCAN WRAPPER DUE TO THERMAL STRESSES RESULTING FROM LOCAL NONUNIFORM TEMPERATURE DISTRIBUTIONS. Kennedy, J. M.; Chawla, T. C.; van Erp, J. B. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 852-3 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTOR FUEL ELEMENTS - cladding of, effects of temperature distribution in failure from thermal stresses in hexcan
 REACTORS, FAST - fuel element cladding of liquid metal cooled, effects of temperature distribution in failure from thermal stress in hexcan
 REACTORS, LIQUID METAL-COOLED - fuel element cladding of fast, effects of temperature distribution on failure from thermal stress in hexcan
- 1082 27:6947 THERMAL STRESS ANALYSIS OF A SUBASSEMBLY DUCT WALL DURING SEVERE THERMAL LOADING. Wang, P. Y.; Crawford, R. M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 853-4 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTOR FUEL ELEMENTS - cladding of, postirradiation stress analysis of stainless steel Types 304 and 316
 REACTORS, FAST - fuel element cladding of liquid metal cooled, postirradiation stress analysis of stainless steel Types 304 and 316
 REACTORS, LIQUID METAL-COOLED - fuel element cladding of fast, postirradiation stress analysis of stainless steel Types 304 and 316
 STAINLESS STEEL - radiation effects in ductility and yield strength of Types 304 and 316

- 1083 27:6948 CALCULATIONAL CAPABILITIES FOR THE ANALYSIS OF THE SNR-300 BOWING COEFFICIENT. Madell, J. T.; Spenke, H. (Interatom, Bensberg, Ger.). Trans. Amer. Nucl. Soc.; 15: No. 2, 854-5(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTOR FUEL ELEMENTS - bowing of fast, capability of calculating coefficient of
 SNR REACTOR - fuel elements of, capability for calculating bowing coefficient of

- 1084 27:6949 EDGE-CHANNEL FLOW IN A 19-ROD LMFBR FUEL ASSEMBLY. Fontana, M. H.; MacPherson, R. E.; Gnadt, P. A.; Parsly, L. F.; Wantland, J. L. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 2, 855-6(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTORS, BREEDER; REACTORS, FAST - fuel assemblies of liquid metal cooled, coolant flow in 19 rod
 REACTORS, LIQUID METAL-COOLED - fuel assemblies of fast breeder, coolant flow in mockup of 19 rod

- 1085 27:6950 EXPERIMENTAL EVALUATION OF SUBCHANNEL COOLANT CROSSFLOW IN LMFBR SUBASSEMBLIES WITH WIRE-SPACERS. van Erp, J. B.; Chawla, T. C. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 856-7(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTORS, BREEDER; REACTORS, FAST - fuel assemblies of liquid metal cooled, coolant crossflow in wire spaced
 REACTORS, LIQUID METAL-COOLED - fuel assemblies of fast breeder, coolant crossflow in wire spaced

- 1086 27:6951 TURBULENT TRANSPORT PROPERTIES FOR THERMAL DESIGN OF LMFBR CORES. Ramm, H.; Johannsen, K. (Technische Univ., Berlin). Trans. Amer. Nucl. Soc.; 15: No. 2, 857-8(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTORS, BREEDER; REACTORS, FAST - fuel assemblies of liquid metal cooled, turbulence of coolant flow in wire spaced
 REACTORS, LIQUID METAL-COOLED - fuel assemblies of fast breeder, turbulence of coolant flow in wire spaced

- 1087 27:6952 DYNAMIC EXPERIMENTS FOR HEAT TRANSFER AND MIXING STUDIES IN LMFBR FUEL ASSEMBLIES. Kerlin, T. W. (Univ. of Tennessee, Knoxville); Fry, D. N. Trans. Amer. Nucl. Soc.; 15: No. 2, 858-9(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTOR FUEL ELEMENTS - heat transfer in 19 rod liquid metal cooled assemblies of, dynamic studies of
 REACTOR FUEL ELEMENTS - coolant flow mixing in 19 rod liquid metal cooled assemblies of, dynamic studies of
 REACTORS, BREEDER; REACTORS, FAST - fuel assemblies of liquid metal cooled, dynamic studies of heat transfer and coolant flow mixing in, (E)
 REACTORS, LIQUID METAL-COOLED - fuel assemblies of fast breeder, dynamic studies of heat transfer and coolant flow mixing in, (E)

- 1088 27:6953 COMPARISON OF EXPERIMENTAL AND ANALYTICAL SODIUM NATURAL-CIRCULATION RESULTS. Coffield, R. D.; Miller, J. V. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 859-60(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTOR FUEL ELEMENTS - heat transfer by free convection from 19 rod assemblies of, (E/T)

REACTORS, BREEDER; REACTORS, FAST - fuel assemblies of liquid metal cooled, heat transfer by free convection from, (E/T)
 REACTORS, LIQUID METAL-COOLED - fuel assemblies of fast breeder, heat transfer by free convection from, (E/T)

- 1089 27:6954 SUBASSEMBLY INTERCHANNEL MIXING PROGRAM (SIMPLE). Henry, R. E. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 866(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- COMPUTER PROGRAMS - SIMPLE, for heat transfer in liquid metal cooled fast breeder reactor wire spaced fuel assemblies
 REACTOR FUEL ELEMENTS - heat transfer in liquid metal cooled wire spaced rod fast assemblies of, SIMPLE code for
 REACTORS, BREEDER; REACTORS, FAST - fuel assemblies of liquid metal cooled, SIMPLE code for heat transfer in wire spaced rod
 REACTORS, LIQUID METAL-COOLED - fuel assemblies of fast breeder, SIMPLE code for heat transfer in wire spaced rod
- 1090 27:6955 MIXING MODEL FOR WIRE-WRAP FUEL ASSEMBLIES. Novendstern, E. H. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 866-7(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTOR FUEL ELEMENTS - coolant mixing in liquid metal cooled wire spaced 19 pin assemblies of, model for
 REACTORS, BREEDER; REACTORS, FAST - fuel assemblies for liquid metal cooled, model for coolant mixing in wire spaced 19 pin, (E)
 REACTORS, LIQUID METAL-COOLED - fuel assemblies for fast breeder, model for coolant flow mixing in wire spaced 19 pin, (E)
- 1091 27:6956 RESULTS AND ANALYSIS OF 7-PIN WIRE-WRAP MIXING EXPERIMENTS. Lorenz, J. J.; Ginsberg, T. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 867-8 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTOR FUEL ELEMENTS - coolant mixing in liquid metal cooled wire spaced 7 pin assemblies of, (E)
 REACTORS, BREEDER; REACTORS, FAST - fuel assemblies for liquid metal cooled, coolant mixing in wire spaced 7 pin, (E)
 REACTORS, LIQUID METAL-COOLED - fuel assemblies for fast breeder, coolant plus mixing in wire spaced 7 pin, (E)
- 1092 27:6960 RECOMMENDED CONSTITUTIVE EQUATIONS FOR FFTF USE AND APPLICATION TO THE ANALYSIS OF STRUCTURES. Greenstreet, W. L. (Oak Ridge National Lab., Tenn.). Trans. Amer. Nucl. Soc.; 15: No. 2, 736(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- FAST FLUX TEST FACILITY - components in, constitutive equations for structural analysis of stainless steel Types 304 and 316
 STAINLESS STEEL - structural analysis of Types 304 and 316, constitutive equations for
- 1093 27:6971 PRESSURE PULSE ON SUBASSEMBLY WALL DUE TO A LOCAL MOLTEN FUEL-COOLANT INTERACTION. Padilla, A. Jr.; Marciniak, T. J.; Crawford, R. M. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 809(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- COMPUTER PROGRAMS - REXCO, for calculation of pressure pulse from liquid sodium--uranium oxide (UO_2) reactions
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - accidents in, calculation of pressure pulse from sodium--fuel reactions from
 SODIUM - reactions with uranium oxides (UO_2) of liquid, calculation of pressure pulse from
 URANIUM OXIDES UO_2 - reactions with liquid sodium. calculation of pressure pulse from
- 1094 27:6972 FUEL-COOLANT INTERACTION AND DIFFERENTIAL MOTION EFFECTS IN LMFBR DISASSEMBLY CALCULATIONS. Jackson, J. F. (Argonne National Lab., Ill.); Nicholson, R. B. Trans. Amer. Nucl. Soc.; 15: No. 2, 810(Nov 1972). From American Nuclear Society international

meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , reactions with sodium coolant during core disassembly accidents, Bethe--Tait calculations of
 REACTOR FUEL ELEMENTS - reactions with liquid sodium coolant of plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, Bethe--Tait calculations of effects in core disassembly accidents of
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core disassembly accidents in, Bethe--Tait calculations of sodium--fuel reactions in
 SODIUM - reactions with plutonium oxide (PuO_2)--uranium oxide (UO_2) fuels, Bethe--Tait calculations of effects in core disassembly accidents of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , reactions with sodium coolant during core disassembly accidents, Bethe--Tait calculations of

- 1095 27:6973 FUEL-COOLANT INTERACTIONS FOLLOWING A VOIDED-CORE DISASSEMBLY. Cho, D. H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 810-11(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

FAST TEST REACTOR - core disassembly accidents in, fuel--coolant reactions following voided
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , reactions with fast reactor liquid sodium coolant following voided core disassembly accidents, calculation of parameters of
 REACTOR FUEL ELEMENTS - reactions with liquid sodium coolant of plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, following voided core disassembly accident
 SODIUM - reactions with plutonium oxide (PuO_2)--uranium oxide (UO_2) fuels following voided core disassembly accidents, calculations of parameters of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , reactions with fast reactor liquid sodium coolant following voided core disassembly accidents, calculation of parameters of

- 1096 27:6974 USE OF SATURATED LIQUID SODIUM PROPERTIES IN FUEL-COOLANT INTERACTION ANALYSIS. Erdman, C. A.; Garner, P. L.; Reynolds, A. B. (Univ. of Virginia, Charlottesville). Trans. Amer. Nucl. Soc.; 15: No. 2, 811-12(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTOR FUEL ELEMENTS - reactions with liquid sodium coolant of fast, effects of use of saturated liquid sodium properties on calculations of
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - accidents in, sources of errors in calculations of sodium--fuel
 SODIUM - reactions with fast reactor fuel elements, effects of use of saturated liquid sodium properties on calculations of

- 1097 27:6975 SODIUM DROPLET COMBUSTION MODEL FOR REACTOR ACCIDENT ANALYSIS. Shire, P. R. (Westinghouse Hanford Co., Richland, Wash.); Hale, J. P.; Omberg, R. P.; Peterson, R. E.; Babb, A. L. Trans. Amer. Nucl. Soc.; 15: No. 2, 812-13(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

LIQUID METAL FAST BREEDER REACTOR - safety analysis of, model of liquid sodium droplet combustion model for
 SODIUM - combustion of droplets of liquid, model of

- 1098 27:6976 ROLE OF NUCLEATION IN VAPOR EXPLOSIONS. Fauske, H. K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 813-14(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

ALUMINUM ALLOYS AND SYSTEMS - Al -- H_2O , explosions between, factors governing
 EXPLOSIONS - vapor, role of nucleation in
 REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - accidents in, factors governing explosions between coolants and fuels
 SODIUM ALLOYS AND SYSTEMS; URANIUM OXIDES UO_2 - Na -- UO_2 , explosions between, factors governing
 VAPORS - explosions of, role of nucleation in
 WATER - Al -- H_2O , explosions between, factors governing

- 1099 27:6977 EFFECT OF NONCONDENSIBLES ON THE RATE OF SODIUM-VAPOR CONDENSATION FROM A SINGLE-RISING HCDA BUBBLE. Theofanous, T. G.; Fauske, H. K. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 814-15(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core disassembly accidents in, calculation of effect of noncondensable gas on rate of sodium vapor condensation following
SODIUM - vapor condensation following core disassembly accidents, calculation of effects of noncondensable gases in rate of

- 1100 27:6979 APPLICATION OF THE PAD CODE TO LMFBR POWER TRANSIENT STUDIES. Engle, L. B.; Stratton, W. R.; Peterson, D. M. (Los Alamos Scientific Lab., N. Mex.). Trans. Amer. Nucl. Soc.; 15: No. 2, 820(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- COMPUTER PROGRAMS - PAD, for calculations of hypothetical accidents in liquid metal cooled fast breeder reactors
REACTORS, BREEDER; REACTORS, FAST - accidents in liquid metal cooled, use of PAD code for calculations of
REACTORS, LIQUID METAL-COOLED - accidents in fast breeder, use of PAD code for calculations of
REACTORS, POWER - accidents in liquid metal cooled fast breeder, use of PAD code for calculations of
- 1101 27:6981 CRITERION FOR FREE-CONTACT FRAGMENTATION OF HOT MOLTEN MATERIALS IN COOLANTS. Kazimi, M. S.; Todreas, N. E.; Lanning, D. D.; Rohsenow, W. M. (Massachusetts Inst. of Tech., Cambridge). Trans. Amer. Nucl. Soc.; 15: No. 2, 835(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- ALUMINUM; NICKEL - reactions with liquid sodium, criteria for explosive
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - explosions in, criteria for fuel-coolant
SILVER - reactions with liquid sodium, criteria for explosive
SODIUM - reactions with uranium oxide (UO_2), uranium, aluminum, silver, nickel, stainless steel, and zirconium of liquid, criteria for explosive
STAINLESS STEEL; URANIUM; URANIUM OXIDES UO_2 ; ZIRCONIUM - reactions with liquid sodium, criteria for explosive
- 1102 27:6982 EXPERIMENTAL INVESTIGATION OF SODIUM BOILING PROCESSES CAUSED BY LOCAL BLOCKAGES. Schleisiek, K. (Kernforschungszentrum, Karlsruhe, Ger.). Trans. Amer. Nucl. Soc.; 15: No. 2, 838(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTORS, FAST - flow blockage accidents in liquid metal cooled, analysis of
REACTORS, LIQUID METAL-COOLED - flow blockage accidents in fast, analysis of
- 1103 27:6983 PREVENTION OF LOCAL FAULT PROPAGATION IN THE LMFBR. Gast, K. (Kernforschungszentrum, Karlsruhe, Ger.). Trans. Amer. Nucl. Soc.; 15: No. 2, 838-9(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTORS, BREEDER; REACTORS, FAST - boiling accidents in liquid metal cooled, prevention of local fault propagated
REACTORS, LIQUID METAL-COOLED - boiling accidents in fast breeder, prevention of local fault propagated
- 1104 27:6984 PROTECTION AGAINST LOCAL CORE MALFUNCTIONS IN LMFBR'S. van Erp, J. B.; Pedersen, D. R. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 839-40(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTORS, BREEDER; REACTORS, FAST - core malfunction accidents in liquid metal cooled, protection against local
REACTORS, LIQUID METAL-COOLED - core malfunction accidents in fast breeder, protection against, local
- 1105 27:6987 HEAT TRANSFER FROM BOILING POOLS WITH INTERNAL HEAT GENERATION. Hesson, J. C.; Gunther, W. H. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 864-5(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTORS, BREEDER; REACTORS, FAST - meltdown accidents in liquid metal cooled, heat transfer from boiling pools of uranium oxide (UO_2) following, (T)
 REACTORS, LIQUID METAL-COOLED - meltdown accidents in fast breeder, heat transfer from boiling pools of uranium oxide (UO_2) following, (T)
 URANIUM OXIDES UO_2 - heat transfer from boiling, calculation of

- 1106 27:7010 ECONOMIC CRITERION FOR THE REINSERTION OF PARTIALLY BURNED LMFBR FUEL ASSEMBLIES. Barthold, W. P. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 658(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

REACTOR FUEL ELEMENTS - management in liquid metal cooled fast breeder reactors, economics of
 REACTORS, BREEDER; REACTORS, FAST - fuel elements in, economics of reuse of partially burned
 REACTORS, LIQUID METAL-COOLED - fuel elements in fast breeder, economics of reuse of partially burned
 REACTORS, POWER - fuel elements for liquid metal cooled fast breeder, economics of reuse of partially burned

- 1107 27:7018 (DOCKET-50016--175) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Report for September 1972. (Power Reactor Development Co., Detroit Mich.). Sep 1972. 21p. (PRDC-EF--109). Dep. NTIS.

FERMI FAST BREEDER REACTOR - operations during September 1972
 FERMI FAST BREEDER REACTOR - maintenance during September 1972
 FERMI FAST BREEDER REACTOR - testing during September 1972

- 1108 27:7060 FRENCH NUCLEAR PLANTS. Leo, M. B. M. (Electricite de France, Paris). Trans. Amer. Nucl. Soc.; 15: No. 2, 841-2(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

BRITTANY POWER REACTOR (EL-4); BUGEY REACTORS (EDF-5); CADARACHE REACTORS (RAPSDIE)
 CHINON REACTORS (EDF-1); CHINON REACTORS (EDF-2); CHINON REACTORS (EDF-3) - operating experience, summary
 FRANCE - nuclear power plants in, summary of operating experience with
 PHENIX FAST REACTOR - construction of, summary
 SAINT LAURENT-DES-EAUX REACTOR (EDF-4); SAINT LAURENT-DES-EAUX REACTOR, UNIT 2; SENA POWER REACTOR; VANDELLOS POWER REACTOR - operating experience, summary

- 1109 27:7121 FISSION: THE PRO'S AND CON'S OF NUCLEAR POWER. Hammond, Allen. Science; 178: No. 4057, 147-9 (13 Oct 1972).

NUCLEAR POWER PLANTS - development of commercial, economic, environmental, and safety aspects of
 REACTORS, BREEDER - development for commercial power plants of liquid metal cooled fast, economic, environmental, and safety aspects of
 REACTORS, FAST - development for commercial power plants of liquid metal cooled breeder, economic, environmental, and safety aspects of
 REACTORS, LIQUID METAL-COOLED - development for commercial power plants of fast breeder, economic, environmental, and safety aspects of
 REACTORS, WATER-COOLED - development for commercial power plants, economic, environmental, and safety aspects of

- 1110 27:7130 ENVIRONMENTAL IMPACT MODELING FOR BREEDER REACTORS. Duffey, Dick (Univ. of Maryland, College Park). Trans. Amer. Nucl. Soc.; 15: No. 2, 646-7(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

LIQUID METAL FAST BREEDER REACTOR; MOLTEN SALT BREEDER REACTOR; REACTORS, BREEDER
 REACTORS, FAST; REACTORS, GAS-COOLED - environmental impact of, mathematical model for

- 1111 27:7151 (DOCKET-50231--127) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Proposed Change 15, Additional Information. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 29 Nov 1972. 3p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - security systems for, requested information on intrusion alarm

- 1112 27:7156 SWELLING BEHAVIOR OF EBR-II MARK-II DRIVER FUEL CLADDING. Flinn, J. E.; Hofman, G. L.; Olson, N. J. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 721(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- EXPERIMENTAL BREEDER REACTOR - fuel elements for, swelling behavior of cladding of driver REACTOR FUEL ELEMENTS - cladding for, radiation effects on swelling of Type 304L stainless steel, fast neutron
STAINLESS STEEL - radiation effects on swelling of Type-304L, fast neutron
- 1113 27:7158 SODIUM VAPOR TRAPS FOR THE FFTF. Guon, J.; Bodine, J. E.; McKisson, R. L. (Atomics International, Canoga Park, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 2, 743-4(Nov 1972). From American Nuclear Society international meeting; Washington, D.C. (12 Nov 1972). See CONF-721109.
- CONDENSERS - design of sodium vapor, for use with continuous sodium vapor traps
FAST FLUX TEST FACILITY - vapor traps for, design of continuous sodium
SODIUM - vapor traps for, design with condenser of continuous
- 1114 27:7159 SURFACE DISTRIBUTION OF ACTIVATED NUCLIDES IN AN EBR-II FUEL CAPSULE. Colburn, R. P. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 745(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- EXPERIMENTAL BREEDER REACTOR - irradiation capsules of, distribution of radionuclides on surface of
LIQUID METAL FAST BREEDER REACTOR - corrosion product release from, development of model for radioactive
RADIATION TARGET CANS - radioactive nuclides on surface of fast neutron irradiated, measurement of distribution of
- 1115 27:7160 PREDICTING THE OPTIMUM CORE CONFIGURATION FOR EBR-II WITH A STAINLESS-STEEL REFLECTOR. Miller, L. B. (Argonne National Lab., Ill.); Gillette, J. L.; Kirn, F. S.; Jarka, R. E. Trans. Amer. Nucl. Soc.; 15: No. 2, 748(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- EXPERIMENTAL BREEDER REACTOR-II - core configuration with stainless steel reflector, calculation of optimum
- 1116 27:7161 ANALYSIS OF MARK IA RUN-TO-FAILURE EXPERIMENTS IN EBR-II. Olson, N. J.; McClellan, G. C.; Flinn, J. E.; Franklin, D. G.; Miller, S. C. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 748-9(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- EXPERIMENTAL BREEDER REACTOR-II - fuel element run-to-failure experiments in, analysis of results of Mark IA
REACTOR FUEL ELEMENTS - failure in run-to-failure experiments, analysis of stainless steel Type 304L clad
- 1117 27:7162 ANISOTROPIC SCATTERING CALCULATIONS FOR A STAINLESS-STEEL REFLECTOR. Long, J. K. (Argonne National Lab., Idaho Falls, Idaho); Meneghetti, D. Trans. Amer. Nucl. Soc.; 15: No. 2, 796-7(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- EXPERIMENTAL BREEDER REACTOR-II - neutron reflector in, calculation of anisotropic scattering from stainless steel
- 1118 27:7165 ANALYSES OF HYPOTHETICAL INLET FLOW BLOCKAGES IN THE EBR-II RADIAL REFLECTOR. Gopalakrishnan, A. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 836-8(Nov 1972). From American Nuclear Society international meeting; Washington, D. C.

(12 Nov 1972). See CONF-721109.

COMPUTER PROGRAMS - SECTOR, for flow blockage analysis in sodium cooled reactors, for IBM 360/75

EXPERIMENTAL BREEDER REACTOR-II - flow blockage accidents in, analysis of hypothetical radial reflector inlet

- 1119 27:7166 FLOW-MODELING STUDIES FOR A HOMOGENEOUS CORE LOADING IN EBR-II. Gopalakrishnan, A. (Argonne National Lab., Ill.); McGinnis, F. D. Trans. Amer. Nucl. Soc.; 15: No. 2, 863-4(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - cooling system of, flow modeling studies with homogeneous core loading of

- 1120 27:7167 MARK-II: A SIMULATED FTR FUEL ASSEMBLY SODIUM FLOW TEST FINAL INSPECTION. Myers, R. L.; Borisch, R. R. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 2, 868-9(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

FAST TEST REACTOR - fuel elements for, simulated test at 1100°F and 525 gpm of driver

- 1121 27:7168 FFTF PROBE-TYPE EDDY-CURRENT FLOWMETER WET vs DRY PERFORMANCE EVALUATION IN SODIUM. Costello, T. J.; Laubham, R. L.; Miller, W. R.; Smith, C. R. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 871(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

FAST TEST REACTOR - flowmeters for, evaluation of wet vs. dry performance of eddy current FLOWMETERS - performance for use in sodium of eddy current, evaluation of wet vs. dry configuration of

SODIUM - flowmeters for, evaluation of wet vs. dry performance of eddy current

- 1122 27:7169 EVALUATION OF EBR-II OPERATIONS WITH HIGH-BURNUP METAL (MARK-II) DRIVER FUEL. Sehgal, B. R. (Argonne National Lab., Ill.); Campise, A. V.; Lo, R. K.; Rempert, R. H. Trans. Amer. Nucl. Soc.; 15: No. 2, 884-5(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - operation with Mark 2 high burnup driver fuel elements, evaluation of

- 1123 27:7170 LOADING, STARTUP, AND INITIAL OPERATION OF EBR-II WITH A STAINLESS-STEEL REFLECTOR. Kirn, F. S.; Cushman, R. A.; Larson, H. A. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 885-6(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - fuel loading of, effects of stainless steel reflector in
EXPERIMENTAL BREEDER REACTOR-II - startup with stainless steel reflector, summary of
EXPERIMENTAL BREEDER REACTOR-II - operation with stainless steel reflector, summary of initial

- 1124 27:7171 ANALYSIS OF THE REACTIVITY FEEDBACK IN THE CURRENT STEEL-REFLECTED LOADING IN EBR-II. Gopalakrishnan, A.; Gillette, J. L.; Meneghetti, D.; Miller, L. B.; Mohr, D. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 899-900(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - reactivity feedback in steel reflected, analysis of

- 1125 27:7178 NEUTRON EMISSION-TIME EFFECTS IN A PULSED SODIUM ASSEMBLY. Kaushal, N. N.; Malaviya, B. K.; Mallen, A. N.; Gaertner, E. R. (Rensselaer Polytechnic Inst., Troy, N. Y.). Trans. Amer. Nucl. Soc.; 15: No. 2, 899-900(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - neutron spectra in pulsed liquid sodium, emission-time effects on fast
NEUTRONS, FAST - spectra in pulsed liquid sodium assemblies, emission-time effects on

- 1126 27:7184 TRANSPORT EFFECTS ON FAST REACTOR DOPPLER COEFFICIENTS. Hardie, R. W.; Little, W. W. (Westinghouse Hanford Co., Richland, Wash.). Trans. Amer. Nucl. Soc.; 15: No. 2, 910-11(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

FAST TEST REACTOR - Doppler coefficients for, comparison of diffusion theory and transport theory calculations for, (T)

- 1127 27:7186 POLARITY SPECTRAL ANALYSIS REACTIVITY MEASUREMENT IN THE ZERO-POWER PLUTONIUM REACTOR. Danofsky, R. A. (Iowa State Univ., Ames); Larson, J. M.; Carpenter, S. G.; Gasidlo, J. M. Trans. Amer. Nucl. Soc.; 15: No. 2, 928-9(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - reactivity measurements in ZPPR, polarity spectral analysis technique for

- 1128 27:7187 FOIL ACTIVATION ANALYSIS IN CRITICAL FACILITY ASSEMBLIES. Maddison, D. W.; Gasidlo, J. M. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 930-1(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - fuel elements in ZPPR, foil activation analysis of reaction rate ratio in, (E/T)

- 1129 27:7188 SUBCRITICAL WORTH MEASUREMENTS OF SIMULATED CONTROL ROD BANKS IN THE LMFBR DEMONSTRATION PLANT BENCHMARK CRITICAL. Amundson, P. I.; Davey, W. G.; Carpenter, S. G.; Young, J. C.; Keeney, W. P. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 931-2(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - control rod banks in ZPPR Assembly 3, subcritical reactivity worths of mockup fast, (E)

REACTOR CONTROL ELEMENTS - reactivity worths of mockup boron carbide fast, (E)

REACTORS, FAST - control rod banks for, reactivity worths of mockup boron carbide, (E)

- 1130 27:7189 LMFBR DEMONSTRATION PLANT BENCHMARK CONTROL ROD EXPERIMENTS. Bailey, H. S.; Stewart, S. L. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 2, 933-4(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - control rod insertion pattern for ZPPR Assembly 3, power density map for

- 1131 27:7190 FLUX TILTING STUDIES IN AN ASYMMETRICALLY POISONED DEMONSTRATION-SIZE FAST REACTOR. Hess, A. L.; Amundson, P. I.; Forrester, R. J.; (and others) (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 934-5(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - neutron flux tilting in ZPPR Assembly 3, effects of asymmetric control rod insertions on, (E/T)

- 1132 27:7191 ANALYSIS OF ENGINEERING MOCKUP CRITICAL (EMC) EXPERIMENTS IN SUPPORT OF FTR POWER PERFORMANCE. Ramchandran, S.; Baloh, F. J.; Calamai, G. C.; Rathbun, R. W. (Westinghouse Advanced Reactors Div., Madison, Pa.). Trans. Amer. Nucl. Soc.; 15: No. 2, 935-6(Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - physics parameter measurements in FTR mockup in ZPR-9, (E/T)

FAST TEST REACTOR - power distribution in, ZPR-9 mockup measurements on, (E/T)

- 1133 27:7192 SEVEN CRITICAL CONFIGURATIONS OF THE ZPPR DEMONSTRATION REACTOR BENCHMARK PROGRAM. Palmer, R. G.; Davey, W. G.; Amundson, P. I. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 936-7 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - core configurations for fast reactor benchmark measurements in ZPPR

- 1134 27:7193 CALCULATIONAL SUPPORT FOR SUBCRITICALITY EXPERIMENTS IN ZPPR-3: THE DEMONSTRATION REACTOR BENCHMARK. Grasseschi, G. L. (Argonne National Lab., Idaho Falls, Idaho). Trans. Amer. Nucl. Soc.; 15: No. 2, 937-8 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - control rod mockups in ZPPR Assembly 3, calculational model for subcriticality measurements with

- 1135 27:7195 BENCHMARK TESTS AND COMPARISONS USING ENDF/B VERSION-III DATA. Zolotar, B. A.; Bohn, E. M.; Dance, K. D. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 941-2 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - physics parameter measurements in ZPR-3 and ZPR-6, ENDF/B data evaluation from, (E/T)

NEUTRON CROSS SECTIONS - evaluation of ENDF/B, use of fast assembly benchmark measurements for, (E/T)

- 1136 27:7196 EFFECTS OF LOCAL FLUX DISTORTIONS ON FISSILE SAMPLE DOPPLER EFFECTS. Kier, P. H. (Argonne National Lab., Ill.); Salvatores, M. Trans. Amer. Nucl. Soc.; 15: No. 2, 949 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

CRITICAL ASSEMBLIES - Doppler effect measurements in ZPR-6, effects of local flux distortions on small sample, (E/T)

- 1137 27:7197 ANALYSIS OF THE EBR-II DOSIMETRY MEASUREMENTS. Sehgal, B. R. (Argonne National Lab., Ill.); Kirn, F. S.; Rempert, R. H. Trans. Amer. Nucl. Soc.; 15: No. 2, 985-6 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - dosimetry measurements for, analysis of

- 1138 27:7198 BURNUP AND FLUENCE HISTORY OF EBR-II. Walker, P.; Meneghetti, D.; Sullivan, J. E. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 986-7 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements in, burnup and neutron fluence history of

- 1139 27:7199 VARIATIONS IN THE POWER DISTRIBUTION OF EBR-II. Laskiewicz, R. A.; Meneghetti, D. (Argonne National Lab., Ill.). Trans. Amer. Nucl. Soc.; 15: No. 2, 987-8 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.

EXPERIMENTAL BREEDER REACTOR-II - power distribution in, variation of, (T)

- 1140 27:7200 EFFECT OF RUPTURE IN A PRESSURIZED NOBLE-GAS ADSORPTION BED. Underhill, D. W. (Harvard School of Public Health, Boston). Nucl. Safety; 13: No. 6, 478-81 (1972).

FAST FLUX TEST FACILITY - fission gas absorption beds for, effects of rupture in pressurized, (E/T)

FISSION PRODUCTS - holdup systems for gaseous, effects of rupture in reactor pressurized, (E/T)
 REACTORS - fission gas absorption beds for, effects of rupture in pressurized, (E/T)

- 1141 27:7201 INFLUENCE OF COMPONENT DEVELOPMENT, PROTOTYPE DESIGNS, AND CONSTRUCTION EXPERIENCE ON THE 1000-MW LMFBR. Wolfe, B. (General Electric Co., Sunnyvale, Calif.). Trans. Amer. Nucl. Soc.; 15: No. 2, 587 (Nov 1972). From American Nuclear Society international meeting; Washington, D. C. (12 Nov 1972). See CONF-721109.
- REACTORS, BREEDER; REACTORS, FAST - development of 1000 MW(e) liquid metal cooled, influence of component development and prototype operation on
 REACTORS, LIQUID METAL-COOLED - development of 1000 MW(e) fast breeder, influence of component development and prototype operation on
 REACTORS, POWER - development of 1000 MW(e) liquid metal cooled fast breeder, influence of component development and prototype operation on
- 1142 27:7497 (ANL--7946) CHEMICAL ENGINEERING DIVISION FUEL CYCLE TECHNOLOGY QUARTERLY REPORT, APRIL--JUNE 1972. Webster, D. S.; Jonke, A. A.; Bernstein, G. J.; Levitz, N. M.; Miller, W. E.; Steindler, M. J.; Vogel, R. C. (Argonne National Lab., Ill.). Sep 1972. Contract W-31-109-eng-38. 63p. Dep. NTIS.
- CALCIUM CHLORIDES - separation from calcium oxides by phase equilibration
 CALCIUM NITRIDES - reactions with liquid magnesium--uranium--zinc alloy, kinetics of
 CALCIUM OXIDES - separation from calcium oxides by phase equilibration
 CENTRIFUGES - performance of contactor, in fuel reprocessing
 DISTILLATION APPARATUS - criticality problems in, in fuel reprocessing
 LIQUID METAL FAST BREEDER REACTOR - fuel reprocessing for
 MAGNESIUM ALLOYS AND SYSTEMS - Mg--Zn, distillation of plutonium--uranium alloy from liquid, design of unit for
 MAGNESIUM ALLOYS AND SYSTEMS - Mg--U--Zn, reactions of liquid, with calcium nitrides
 PLUTONIUM - separation from spent oxide fuels by pyrochemical and solvent extraction processes
 PLUTONIUM - separation from liquid magnesium--zinc alloy by precipitation using calcium nitrides
 PLUTONIUM - determination in fast breeder oxide fuels by x-ray fluorescence methods, on-line
 PLUTONIUM - reduction and reoxidation in Purex Process
 PLUTONIUM ALLOYS AND SYSTEMS - Pu--U, distillation from liquid magnesium--zinc alloy, design of unit for
 PLUTONIUM NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, denitration of solutions of, production of oxides by fluidized-bed
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_3 , preparation by fluidized-bed denitration of plutonium nitrate--uranyl nitrate solutions
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , analysis for plutonium by x-ray fluorescence methods, on-line
 PUREX PROCESS - plutonium reduction and reoxidation in
 RADIOACTIVE WASTE - processing of salt, from pyrochemical fuel reprocessing
 REACTOR FUEL ELEMENTS - reprocessing of stainless steel-clad oxide, head-end pyrochemical
 REACTOR FUEL ELEMENTS - decladding of, using liquid metals
 REACTOR FUELS - reprocessing of, criticality and entrainment in distillation unit for
 REACTOR FUELS - reprocessing of, performance of centrifugal contactors in
 STAINLESS STEEL - solubility in liquid zinc
 URANIUM - separation from spent oxide fuels by pyrochemical and solvent extraction processes
 URANIUM - separation from liquid magnesium--zinc alloy by precipitation using calcium nitrides
 URANIUM ALLOYS AND SYSTEMS - Pu--U, distillation from liquid magnesium--zinc alloy, design of unit for
 URANIUM ALLOYS AND SYSTEMS - Mg--U--Zn, reactions of liquid, with calcium nitrides
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , analysis for plutonium by x-ray fluorescence methods, on-line
 URANIUM OXIDES UO_3 - PuO_2 -- UO_3 , preparation by fluidized-bed denitration of plutonium nitrate--uranyl nitrate solutions
 URANYL NITRATES - $\text{Pu}(\text{NO}_3)_4$ -- $\text{UO}_2(\text{NO}_3)_2$, denitration of solutions of, production of oxides by fluidized-bed
 ZINC - solvent properties for stainless steel
 ZINC ALLOYS AND SYSTEMS - Mg--Zn, distillation of plutonium--uranium alloy from liquid, design of unit for
 ZINC ALLOYS AND SYSTEMS - Mg--U--Zn, reactions of liquid, with calcium nitrides

- 1143 27:7870 (HEDL-TME--72-133) FFTF PRIMARY PIPING FABRICATION COMPARISON. Steichen, J. M. (Hanford Engineering Development Lab., Richland, Wash.). Oct 1972. Contract

AT(45-1)-2170. 24p. Dep. NTIS.

FAST FLUX TEST FACILITY - piping for primary system of, Rollmet fabrication method for Type 304 stainless steel
STAINLESS STEEL - fabrication of pipes of Type 304, for FFTF primary system

- 1144 27:7871 (RDT-E--6-34-T) FABRICATION OF CORE COMPONENT POT FOR LIQUID METAL SERVICE. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Mar 1972. 7p. RS0.

LIQUID METAL FAST BREEDER REACTOR - cooling system for, standard for fabrication of core component pots for
STANDARDS - fabrication of core component pot for liquid metal service

- 1145 27:7886 (BNWL-SA--4334) MATERIALS FOR LIQUID METAL FAST BREEDER REACTORS: VESSELS, PIPING, INTERNALS, AND CLADDING. Bush, S. H. (Battelle Pacific Northwest Labs., Richland, Wash.). 24 May 1972. 35p. (CONF-721104--1). Dep. NTIS. From INCO power conference; Kyoto, Japan (28 Nov 1972).

LIQUID METAL FAST BREEDER REACTOR - materials for, properties of austenitic stainless steel
STAINLESS STEEL - properties of austenitic, for use in LMFBR components

- 1146 27:8973 PHENIX: A STAGE IN THE INDUSTRIAL DEVELOPMENT OF FAST NEUTRON ELECTRONUCLEAR PLANTS. Carle, R. (CEN de Saclay, Gif-sur-Yvette, France); Megy, J.; Robert, E.; Rozenholc, M. Rev. Fr. Energ.; 23: No. 245, 555-64 (Sep 1972). (In French).

PHENIX FAST REACTOR - development of, summary of

- 1147 27:8979 (CEA-CONF--2086) FORCED CONVECTION BOILING OF SODIUM IN A NARROW CHANNEL. Costa, J.; Charlety, P. (Commissariat a l'Energie Atomique, Grenoble (France). Centre d'Etudes Nucleaires). [nd]. 7p. (CONF-711103--3). Dep. NTIS (U. S. Sales Only). From American Institute of Chemical Engineers meeting; San Francisco, Calif. (29 Nov 1971).

REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling channels of, pressure drop effects of forced convection boiling of sodium in, (E/T)
SODIUM - boiling in narrow channels, pressure drop effects of forced convection, (E/T)

- 1148 27:8988 (ANL--7918) INVESTIGATIONS OF MATERIALS COMPATIBILITY RELEVANT TO THE EBR-II SYSTEM. Ruth, W. E.; Greenberg, S. (Argonne National Lab., Ill.). Jul 1972. Contract W-31-109-eng-38. 39p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - cooling system materials for, compatibility of sodium coolant with, (E)
SODIUM - compatibility with materials in reactor cooling systems, (E)
STAINLESS STEEL - compatibility with sodium in reactor cooling systems, (E)

- 1149 27:8989 (ANL/EBR--60) FINAL SYSTEM DESIGN DESCRIPTION OF THE EBR-II REACTOR HYDRAULIC TEST FACILITY (RHTF). Cerchione, J. D.; McGinnis, F. D.; Long, P. M.; Rice, R. E.; Gopalakrishnan, A. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Oct 1972. Contract W-31-109-Eng-38. 52p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - coolant flow distribution in core of, design of hydraulic test facility for

- 1150 27:8990 (EUR--4882) OBSERVATIONS ON SODIUM BOILING INSIDE A COOLING CHANNEL OF A FAST BREEDER REACTOR. Bruzzi, G. (European Atomic Energy Community, Ispra (Italy). Joint Nuclear Research Center). Oct 1972. 28p. (In Italian). Dep. NTIS (U. S. Sales Only). EUR FB 40,-.

REACTORS, BREEDER; REACTORS, FAST - cooling systems of sodium cooled, boiling phenomena in
REACTORS, LIQUID METAL-COOLED - cooling systems of, boiling phenomena in sodium
SODIUM - boiling phenomena in

- 1151 27:8995 (JAPFNR--64) THERMAL RATCHET TEST OF CLADDING MATERIAL FOR FAST BREEDER REACTOR. Honda, Yutaka; Yamanouchi, Hidekazu (Mitsubishi Atomic Power Industries, Inc., Omiya (Japan)). Aug 1971. 33p. (PNC-SJ--206-71-12). Dep. NTIS (U. S. Sales Only). For Power Reactor and Nuclear Fuel Development Corp., Tokyo (Japan).
REACTOR FUEL ELEMENTS - cladding for sodium cooled, thermal ratchetting of stainless steel, (E)
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel element cladding for sodium cooled, thermal ratchetting of stainless steel, (E)
- 1152 27:8997 FUEL SPECIFICATIONS FOR THE SNR-300. REPERCUSSIONS ON THE MANUFACTURING PROCEDURE FOR FUEL TABLETS. Mueller, N. (NUKEM GmbH., Wolfgang, Ger.). Atomwirt., Atomtech.; 17: No. 12, 610-13(Dec 1972). (In German).
SNR REACTOR - fuel pellets for, fabrication procedures for
- 1153 27:8998 VIBRATIONS OF PRISMATIC SHELLS WITH HEXAGONAL CROSS SECTION. Krajcinovic, D. (Argonne National Lab., IL). Nucl. Eng. Des.; 22: No. 1, 43-50(1972).
REACTOR FUEL ELEMENTS - vibration analysis of hexagonal subassembly ducts in, semimembrane shell theory method for
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel subassembly ducts in sodium cooled, vibration analysis of hexagonal, (T)
SHELLS (GEOMETRY) - vibration analysis of hexagonal prismatic, semimembrane theory method for
- 1154 27:8999 FORCED-FLOW INTERCHANNEL MIXING MODEL FOR FUEL ROD ASSEMBLIES UTILIZING A HELICAL WIRE-WRAP SPACER SYSTEM. Ginsberg, T. (Argonne National Lab., IL). Nucl. Eng. Des.; 22: No. 1, 28-42(1972).
REACTOR FUEL ELEMENTS - coolant interchannel mixing in, effects of helical wire-wrap rod spacer system on forced-flow, (E/T)
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel assemblies for sodium cooled, forced-flow interchannel mixing model for helical wire-wrap rod spacer system in, (E/T)
- 1155 27:9008 FAST REACTOR FUEL INTERACTIONS WITH FLOOR MATERIAL AFTER A HYPOTHETICAL CORE MELTDOWN. Jansen, G. (Battelle Northwest Labs., Richland, WA); Stepnewski, D. D. Nucl. Technol.; 17: No. 1, 85-90(Jan 1973).
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core meltdown accidents in sodium cooled, fuel interactions with floor material following, (T)
- 1156 27:9041 (DOCKET-50016--176) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Technical Specifications, Change Request, December 4, 1972. (Power Reactor Development Co., Detroit, Mich.). 6 Dec 1972. 11p. Dep. NTIS.
FERMI FAST BREEDER REACTOR - fuel element subassemblies for, revised specifications for storage of cut-up Core A
- 1157 27:9042 (DOCKET-50016--177) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Technical Specifications, Change Request, Additional Information. (Power Reactor Development Co., Detroit, Mich.). 12 Dec 1972. 1p. Dep. NTIS.
FERMI FAST BREEDER REACTOR - fuel element subassemblies for, additional data on storage of cut-up
- 1158 27:9043 (DOCKET-50016--178) ENRICO FERMI ATOMIC POWER PLANT, UNIT 1. Technical Specifications, Revised Request for a Change. (Power Reactor Development Co., Detroit, Mich.). 15 Dec 1972. 11p. Dep. NTIS.
FERMI FAST BREEDER REACTOR - fuel assemblies for, revised technical specifications request for storage of cut-up Core A

- 1159 27:9120 (WASH--1227(Vol.2)) FAST FLUX TEST FACILITY. Preliminary Safety Analysis Report. (WADCO Corp., Richland, Wash.). Sep 1970. Contract AT(45-1)-2170. 389p. Dep. NTIS.
- FAST TEST REACTOR - auxiliary systems for, preliminary safety analysis of
 FAST TEST REACTOR - radioactive waste disposal system for, preliminary safety analysis of
 FAST TEST REACTOR - shielding for, preliminary safety analysis of
 FAST TEST REACTOR - safety analysis of
 FAST TEST REACTOR - quality assurance program for, preliminary safety analysis of
 FAST TEST REACTOR - operations aspects of, preliminary safety analysis of
 FAST TEST REACTOR - testing program for, preliminary safety analysis of
 FAST TEST REACTOR - design characteristics of, preliminary safety analysis of
 FAST TEST REACTOR - containment system for, test program for
- 1160 27:9129 (WASH--1227(Vol.1)) FAST FLUX TEST FACILITY. Preliminary Safety Analysis Report. (WADCO Corp., Richland, Wash.). Sep 1970. Contract AT(45-1)-2170. 15p. Dep. NTIS.
- FAST TEST REACTOR - site for, preliminary safety analysis of
 FAST TEST REACTOR - design characteristics of, preliminary safety analysis of
 FAST TEST REACTOR - cooling system for, preliminary safety analysis of
 FAST TEST REACTOR - containment structure for, preliminary safety analysis of
 FAST TEST REACTOR - engineered safeguards for, preliminary safety analysis of
 FAST TEST REACTOR - instrumentation for, preliminary safety analysis of
 FAST TEST REACTOR - control system for, preliminary safety analysis of
 FAST TEST REACTOR - electrical systems for, preliminary safety analysis of
 FAST TEST REACTOR - testing facilities for, preliminary safety analysis of
 FAST TEST REACTOR - fuel handling system for, preliminary safety analysis of
- 1161 27:9132 TURBULENT FLOW PRESSURE DROP MODEL FOR FUEL ROD ASSEMBLIES UTILIZING A HELICAL WIRE-WRAP SPACER SYSTEM. Novendstern, E. H. (Westinghouse Electric Corp., Madison, PA). Nucl. Eng. Des.; 22: No. 1, 19-27(1972).
- FAST TEST REACTOR - fuel assemblies for, pressure drop model for helical wire-wrap rod spacer system in, (T)
 REACTOR FUEL ELEMENTS - coolant pressure drop in, effects of helical wire-wrap rod spacer system on turbulent flow, (T)
- 1162 27:9468 USE OF A CAVITATING PUMP FOR CONTROL OF A POTASSIUM RANKINE CYCLE SYSTEM. Gnadt, P. A.; Yarosh, M. M. (Oak Ridge National Lab., TN). pp 11.39-44 of Energy 70, Proceedings. Vol. 1. Hinsdale, Ill.; American Nuclear Society (1970). From 5. annual intersociety energy conversion engineering conference; Las Vegas, Nev. (21 Sep 1970). See CONF-700912--(Vol.1).
- POTASSIUM - flow in Rankine cycle space power conversion system, feasibility study of cavitating pumps for controlling
 PUMPS (LIQUID METAL) - performance of cavitating, for controlling potassium Rankine cycle space power conversion system
 SYSTEMS FOR NUCLEAR AUXILIARY POWER (SNAP) - power conversion system for space, feasibility study of cavitating pump for controlling potassium Rankine cycle
- 1163 27:9506 DISTRIBUTION OF THE MAGNETIC FIELD ALONG THE AXIS OF THE CHANNEL IN THE MAGNETIC SYSTEM OF A CONDUCTING (DC) PUMP. Vitol, V. Kh. Magn. Gidrodin.; No. 1, 137-9(1972). (In Russian).
- ELECTROMAGNETIC PUMPS - magnetic field distribution along axis of channel in conducting dc
 MAGNETIC FIELDS - distribution along channel axis of the magnetic system in conducting dc pumps
- 1164 27:11266 LIQUID METAL FAST BREEDER REACTOR (LMFBR) DEMONSTRATION PLANT. HEARINGS BEFORE THE JOINT COMMITTEE ON ATOMIC ENERGY, CONGRESS OF THE UNITED STATES, NINETY-SECOND CONGRESS, SECOND SESSION, SEPTEMBER 7, 8, AND 12, 1972. Washington, DC; Joint Committee on Atomic Energy (1972). 275p. GPO \$2.00.
- LIQUID METAL FAST BREEDER REACTOR - development of, JCAE hearings on

- 1165 27:11268 IMPORTANT SODIUM COOLED FAST BREEDER REACTOR PROGRAMS. Grenon, Michel. Rev. Fr. Energ.; 23: No. 245, 577-83(Sep 1972). (In French).
BN-350 REACTOR; BN-600 REACTOR; FAST TEST REACTOR; PEC FAST TEST REACTOR; PROTOTYPE FAST REACTOR; SNR REACTOR - development of, program for
- 1166 27:11269 NUCLEAR ENERGY'S TOMORROW. Shaw, Milton (Atomic Energy Commission, Washington, DC). pp 18.5-7 of Energy 70, Proceedings. Vol. 2. Hinsdale, Ill.; American Nuclear Society (1970). From 5. annual intersociety energy conversion engineering conference; Las Vegas, Nev. (21 Sep 1970). See CONF-700912--(Vol.2).
ELECTRIC POWER - generation in U.S., development status of liquid metal cooled fast breeder reactors for future
REACTORS, BREEDER - development in U.S. of liquid metal cooled fast, status of
REACTORS, FAST - development in U.S. of liquid metal cooled breeder, status of
REACTORS, LIQUID METAL-COOLED - development in U.S. of fast breeder, status of
REACTORS, POWER - development in U.S. of liquid metal cooled fast breeder, status of
- 1167 27:11270 ENVIRONMENTAL AND REGULATORY ASPECTS OF THE BREEDER REACTOR. Doub, W. O. (Atomic Energy Commission, Washington, D. C.). Environ. Aff.; 2: No. 1, (1972).
ATOMIC ENERGY, LEGAL ASPECTS - survey of liquid metal fast breeder reactor
LIQUID METAL FAST BREEDER REACTOR - development of, survey of economic, environmental, and regulatory aspects of
- 1168 27:11273 (AI-AEC--13040) LMFBR PHYSICS PROGRAMS. Quarterly Technical Progress Report, July--September 1972. (Atomics International, Canoga Park, Calif.). 15 Nov 1972. Contract AT(04-3)-824. 15p. Dep. NTIS.
LIQUID METAL FAST BREEDER REACTOR - physics measurement programs during July to September 1972
NEUTRON CROSS SECTIONS - calculations for fast reactors, evaluation of ENDF/B data for, (E/T)
REACTORS, FAST - physics analysis of, development of IMPS and VIM codes for
TUNGSTEN - neutron cross sections for, evaluation of ENDF/B data for, (E/T)
- 1169 27:11274 (EURFNR--1047) PHYSICS INVESTIGATIONS OF SODIUM COOLED FAST REACTORS: CORE Z1 MASURCA IN SNEAK-ASSEMBLY 6D. Hammer, Philippe (comp.) (Commissariat a l'Energie Atomique, Cadarache (France). Centre d'Etudes Nucleaires); Plum, Fritz (comp.) (Kernforschungszentrum, Karlsruhe (West Germany). Institut fuer Angewandte Systemtechnik und Reaktorphysik). Sep 1972. 89p. (CEA-N--1561; KFK--1581). Dep. NTIS (U. S. Sales Only). Work Performed under United States--Euratom Fast Reactor Exchange Program.
CRITICAL ASSEMBLIES - physics measurements on sodium cooled fast core mockup in MASURCA
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - physics measurements on sodium cooled, in plutonium fueled core mockup
- 1170 27:11280 LIQUID METAL COOLED NUCLEAR REACTOR. Ventre, E. (to Electricite de France). French Patent 2,112,044. 16 Jun 1972. Filed 5 Aug 1970. (In French).
REACTORS, LIQUID METAL-COOLED - design with integrated heat exchanger
- 1171 27:11281 IMPROVEMENTS IN OR RELATING TO NUCLEAR REACTORS. Barker, A.; Perks, M. A. (to United Kingdom Atomic Energy Authority). British Patent 1,285,464. 16 Aug 1972. Filed 8 Aug 1969.
REACTORS, BREEDER - core for uniform power distribution and high coolant temperature in fast, arrangement of
REACTORS, FAST - core for uniform power distribution and high coolant temperature in breeder, arrangement of
REACTORS, LIQUID METAL-COOLED - core for uniform power distribution and high coolant temperature in fast breeder, arrangement of
- 1172 27:11290 (HEDL-TME--72-24) TEMPERATURE--VOLTAGE DEPENDENT NOISE IN METAL OXIDE INSULATED

CABLES. Stringer, J. L.; Philipp, L. D.; Schemmel, R. R. (Hanford Engineering Development Lab., Richland, Wash.). Jan 1972. Contract AT(45-1)-2170. 29p. Dep. NTIS.

CABLES - noise in magnesium oxide and silicon oxide insulated, effects of temperature and voltage on, (E)
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - neutron flux monitoring system for sodium cooled, effects of temperature and voltage on noise in cables of, (E)

- 1173 27:11292 P.F.R. STATION CONTROL SYSTEM. Mummery, P. W.; Evans, A. D.; Barclay, F. J. (United Kingdom Atomic Energy Authority, Dounreay, Scotland). Atom (London); No. 193, 197-201(Nov 1972).

PROTOTYPE FAST REACTOR - control system for, description of
 PROTOTYPE FAST REACTOR - instrumentations for, description of

- 1174 27:11293 IMPROVEMENTS IN OR RELATING TO NUCLEAR REACTORS. Linning, D. L.; Cowking, C. B. (to United Kingdom Atomic Energy Authority). British Patent 1,279,978. 28 Jun 1972. Filed 20 Dec 1968.

REACTOR CONTROL SYSTEMS - design of shutdown, for sodium-cooled fast reactors
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - shutdown equipment for sodium-cooled, design of

- 1175 27:11294 BREEDER REACTOR CONTROL SYSTEMS. Macrae, G. (Westinghouse Electric Corp., Madison, Pa.). Power Eng.; 76: No. 5, 43-6(May 1972).

REACTOR CONTROL SYSTEMS - performance of sodium cooled fast breeder, effects of operating conditions on
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - control systems for sodium cooled, performance of

- 1176 27:11295 ANTIJAM SLIDING SEAL STRUCTURE. Tschamper, Pierre M. (to United States Atomic Energy Commission). U. S. Patent 3,677,891. 18 Jul 1972. Filed 16 Jun 1971.

REACTOR CONTROL ELEMENTS - seals for sodium-cooled reactor, description of antijam sliding
 REACTORS, LIQUID METAL-COOLED - control rods for, design of antijam sliding seals for
 SEALS AND GLANDS - design of antijam sliding, for control rods in sodium cooled reactors

- 1177 27:11309 IMPROVEMENTS IN OR RELATING TO PRESSURE VESSELS. Davies, I. L.; Burrow, R. E. D. (to Taylor Woodrow Construction Ltd.). British Patent 1,287,677. 6 Sep 1972. Filed 29 Jul 1970.

PRESSURE VESSELS - design for liquid metal-cooled reactors
 REACTORS, LIQUID METAL-COOLED - pressure vessels for, design of

- 1178 27:11313 SHIELD PLUG ACCESS ENCLOSURE FOR A NUCLEAR REACTOR. Sutherland, J. D. (to Westinghouse Electric Corp.). U. S. Patent DPT901,028. 15 Aug 1972. Filed 11 Feb 1971.

REACTORS, BREEDER - shield plug access enclosure for liquid metal-cooled fast, design of
 REACTORS, FAST - shield plug access enclosure for liquid metal-cooled breeder, design of
 REACTORS, LIQUID METAL-COOLED - shield plug access enclosure design of, fast breeder
 SHIELDING - plug access enclosure design for sodium cooled fast breeder reactor

- 1179 27:11319 ADJUSTABLE AXIAL FLOW CAVITATION SUPPRESSING FLOW IMPEDANCE. Betts, C.; Collinson, A. E. (to United Kingdom Atomic Energy Authority). British Patent 1,288,258. 6 Sep 1972. Filed 22 Oct 1969.

REACTORS, LIQUID METAL-COOLED - coolant flow control in channels, cavitation suppressing impedance device for
 SODIUM - flow in channels of liquid, cavitation suppressing flow impedance device for

- 1180 27:11321 METHOD OF CLEANING PARTS STAINED WITH AN ALKALI METAL. Berrou, F.; Lacroix, A.; Pomie, P. (to Commissariat a l'Energie Atomique). French Patent 2,104,686. 21 Apr 1972. Filed 8 Jul 1970. (In French).
CLEANING - method for removing sodium from reactor components
CLEANING - device for removing sodium from reactor components
REACTORS, LIQUID METAL-COOLED - components of, method and device for cleaning sodium from
SODIUM - removal from reactor components, cleaning method and device for
- 1181 27:11324 NUCLEAR REACTOR WITH AN INTEGRATED COOLING CIRCUIT. Marmonier, Pierre; Sauvage, Michel (to Commissariat a l'Energie Atomique). French Patent 2,096,939. 3 Mar 1972. Filed 17 Jul 1970. (In French).
REACTORS, LIQUID METAL-COOLED - cooling systems for, description of integrated
- 1182 27:11340 FUEL ASSEMBLY FOR A LIQUID-METAL-COOLED FAST BREEDER REACTOR. Huebotter, Paul R.; Bump, Thomas R. (to United States Atomic Energy Commission). U. S. Patent 3,677,893. 18 Jul 1972. Filed 29 Oct 1971.
REACTOR FUEL ELEMENTS - assemblies with flow separators for liquid metal fast breeder, description
REACTORS, BREEDER; REACTORS, FAST - fuel assemblies with flow separators for liquid metal cooled, description of
REACTORS, LIQUID METAL-COOLED - fuel assemblies with flow separators for fast breeder, description of
- 1183 27:11357 LOCALIZATION OF BURST SLUGS. Delisle, J.-P.; Pochard, R.; Porte, R.; Prouteau, L. (to Commissariat l'Energie Atomique). French Patent 2,105,071. 28 Apr 1972. Filed 22 Sep 1970. (In French).
REACTOR FUEL ELEMENTS - failure localization in sodium-cooled reactors, method for
REACTORS, LIQUID METAL-COOLED - fuel element failure in sodium-cooled, method for localization of slug
- 1184 27:11374 (HEDL-TME--72-126) VOID DISTRIBUTION CONSIDERATIONS FOR WET CORE LMFBR DISASSEMBLY CALCULATIONS. Waltar, A. E.; O'Dell, L. D. (Hanford Engineering Development Lab., Richland, Wash.). Sep 1972. Contract AT(45-1)-2170. 29p. Dep. NTIS.
FAST TEST REACTOR; REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - core disassembly accidents in, effects of wet region void distribution on, (T)
- 1185 27:11375 (ORNL-TM--3973) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR JULY--AUGUST 1972. Cottrell, W. B. (Oak Ridge National Lab., Tenn.). Oct 1972. Contract W-7405-eng-26. 167p. Dep. NTIS.
CHARCOAL - temperature of filters of, effects of fission product iodine decay heat on post-accident, (E/T)
FISSION PRODUCTS - release from coated particle fuels, effects of postirradiation annealing on, (E)
FISSION PRODUCTS - distribution in cooling systems of HTGR-type reactors, (E)
GRAPHITE - corrosion of H-327, by high temperature steam, (E)
HEATERS - development for sodium cooled fuel element testing facility
INFORMATION CENTERS - operation of Nuclear Safety, during July and August 1972
IODINE - sorption on iron oxides (Fe_3O_4), effects of temperature on, (E)
IRON OXIDES Fe_3O_4 - sorptive properties for iodine, effects of temperature on, (E)
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, Failed Fuel Mockup facility for testing
NOZZLES - stresses in reactor pressure vessel, effects of attachment configuration on, (E/T)
PEACH BOTTOM POWER REACTOR, UNIT 1 - cooling system of, fission product surveillance in primary
PIPES - design criteria for nuclear service, development program for
PIPES - tees for nuclear service, stress testing of
PRESSURE VESSELS - fracture of heavy section steel, effects of fatigue crack propagation on, (E)
PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)
PUMPS - design criteria for nuclear service, development program for
REACTOR FUEL ELEMENTS - failure of sodium cooled, coolant flow and temperature

distribution effects on, (E/T)
 REACTOR FUEL ELEMENTS - cooling channel blockage in, fluid flow, pressure, and temperature effects of, (E/T)
 REACTOR FUEL ELEMENTS - heat transfer in water cooled, effects of blowdown transients on, (E/T)
 REACTOR SAFETY - development activities during July and August 1972
 REACTORS, LIQUID METAL-COOLED - standards for, development of engineering
 REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly blowdown transient heat transfer during, (E/T)
 REACTORS, WATER-COOLED - standards for, development of engineering
 STANDARDS - development of reactor engineering, during July and August 1972
 STEAM - corrosive effects on H-327 graphite, (E)
 VALVES - design criteria for nuclear service, development program for

- 1186 27:11394 HEAT EXCHANGERS FOR SODIUM-COOLED NUCLEAR REACTORS. Keusenhoff, J. (to Internationale Atomreaktorbau GmbH). German Patent 2,046,548. 23 Mar 1972. (In German).

HEAT EXCHANGERS - design for sodium-cooled reactors
 REACTORS, LIQUID METAL-COOLED - heat exchangers for sodium, design of

- 1187 27:11396 HEAT EXCHANGER INSTALLATION FOR A REACTOR. (to Babcock-Atlantique). French Patent 2,096,841. 3 Mar 1972. Filed 6 Jul 1970. (In French).

HEAT EXCHANGERS - design of sodium-cooled in-vessel, for fast reactors
 REACTORS, FAST - heat exchangers for sodium cooled, description of in-vessel
 REACTORS, LIQUID METAL-COOLED - heat exchangers for fast sodium-cooled, description of in-vessel

- 1188 27:11503 (DOCKET-50231--128) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. First Annual Status Report for the Deactivated Reactor, November 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). 21 Nov 1972. 9p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - status report for deactivated, May to November 1972

- 1189 27:11504 (DOCKET-50231--129) SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR. Technical Specifications, Change 15. (Directorate of Licensing (AEC), Washington, D. C.). 8 Dec 1972. 9p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - security requirements for, revised technical specifications for

- 1190 27:11644 (HEDL-SA--426) SYNOPSIS OF ORAL PRESENTATION ANALYTICAL CHEMISTRY PROGRAMS AT THE HANFORD ENGINEERING DEVELOPMENT LABORATORY. Alkire, G. J.; Hartcorn, L. A.; Matsumoto, W. Y.; Moore, R. L. (Hanford Engineering Development Lab., Richland, Wash.). 13 Sep 1972. Contract AT(45-1)-2170. 32p. (CONF-721025--13). Dep. NTIS. From 16. conference on analytical chemistry in nuclear technology; Gatlinburg, TN (24 Oct 1972).

ANALYTICAL CHEMISTRY - programs at Hanford Engineering Development Laboratory
 FAST FLUX TEST FACILITY - materials for, HEDL Analytical Chemistry programs for characterizing

- 1191 27:11895 (JPRS--57915) INFLUENCE OF THE METHOD OF LIQUEFYING THE VAPOR PHASE ON THE FLOW CHARACTERISTICS OF THE ACCELERATOR OUTPUT OF A LIQUID-METAL MHD-CONVERTER. Kozlov, V. B.; Dzhamardzhashvili, V. A. Translated from Izv. Akad. Nauk SSSR, Energ. Transp.; No. 5, 90-95(1972). 10p. NTIS.

MAGNETOHYDRODYNAMIC GENERATORS - pumps for liquid-metal, flow characteristics of, (T)
 PUMPS (LIQUID METAL) - flow characteristics of, for MHD generators, (T)

- 1192 27:12002 (HEDL-SA--442) EFFECTS OF GAS MIXTURE, ELECTRODE SPACING, GAS PRESSURE, AND APPLIED VOLTAGE ON THE GAMMA PERFORMANCE OF FISSION COUNTERS. Hoitink, N. C.; Philipp, L.

D.; Wood, M. R. (Hanford Engineering Development Lab., Richland, Wash.). 3 Oct 1972. Contract AT(45-1)-2170. 24p. (CONF-721109--12). Dep. NTIS. From International conference on nuclear solutions to world energy problems; Washington, DC (12 Nov 1972).

LIQUID METAL FAST BREEDER REACTOR - neutron flux measurements at, methods for improving performance of fission chambers for
RADIATION DETECTORS, FISSION CHAMBER - performance in high gamma fluxes, effects of applied voltage, electrode spacing, and gas mixture and pressure on

- 1193 27:12007 (ORNL-TM--3959) NEUTRON SENSOR DEVELOPMENT FOR EXTREME ENVIRONMENTS PROGRESS REPORT FOR PERIOD JANUARY 1, 1971 TO JUNE 30, 1972. Roux, D. P. (Oak Ridge National Lab., Tenn.). Dec 1972. Contract W-7405-eng-26. 39p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - instrumentation for, development of in-core fission chamber
NEUTRONS - flux monitoring in LMFBR, fission chamber development for in-core
RADIATION DETECTORS, FISSION CHAMBER - development for use in LMFBR

- 1194 27:12386 (ANL--7922) CHEMICAL ENGINEERING DIVISION, FUELS AND MATERIALS CHEMISTRY SEMI-ANNUAL REPORT, JANUARY--JUNE 1972. Chasanov, M. G.; Johnson, C. E.; Battles, J. E.; (and others) (Argonne National Lab., Ill.). Oct 1972. Contract W-31-109-Eng-38. 60p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuels for, chemistry and metallurgy of
REACTOR FUELS - chemistry and metallurgy of LMFBR, research program on

- 1195 27:13936 (BMBW-FBK--72-16) DEVELOPMENT OF A 300 MWe PROTOTYPE NUCLEAR POWER STATION WITH SODIUM COOLED FAST REACTOR SNR. Final Report. (Internationale Atomreaktorbau G.m.b.H., Bensberg (West Germany). Siemens A.G.; Erlangen (West Germany)). Sep 1972. 303p. (In German). Dep. NTIS (U. S. Sales Only).

SNR REACTOR - development of, summary of activities in

- 1196 27:13941 STATUS REPORT OF THE FAST-BREEDER PROJECT IN MOL. Hueper, R. KFK Nachr.; 4: No. 2, 37-40(1972). (In German).

SNR REACTOR - development of, status of international efforts for

- 1197 27:13943 BREEDER REACTOR STATUS REPORT 1972. Wiss., Wirt., Polit.; 2: No. 13, 2(1972). (In German).

SNR REACTOR - development of, 1972 status of

- 1198 27:13945 (CONF-721112--4) COMPARISONS OF HIGH-TEMPERATURE STRUCTURAL TEST RESULTS WITH INELASTIC ANALYSIS PREDICTIONS BASED ON INTERIM CONSTITUTIVE EQUATIONS FOR LIQUID-METAL FAST BREEDER REACTOR SYSTEM COMPONENTS. Corum, J. M. (Oak Ridge National Lab., Tenn.). 1972. Contract W-7405-eng-26. 32p. Dep. NTIS. From American Society of Mechanical Engineers Winter Meeting; New York, NY (26 Nov 1972).

LIQUID METAL FAST BREEDER REACTOR - equipment for, structural testing program for, (E/T)
LIQUID METAL FAST BREEDER REACTOR - components for, structural testing program for, (E/T)

- 1199 27:13955 OPTIMIZATION OF SODIUM-COOLED FAST BREEDER REACTORS USING METHODS OF NONLINEAR PROGRAMMING. Heusener, G. Karlsruhe, Ger.; Karlsruhe Univ. (1970). 109p. (In German). Thesis.

REACTORS, BREEDER - design optimization of sodium-cooled fast, methods for calculating
REACTORS, FAST - design optimization of sodium-cooled breeder, methods for calculating
REACTORS, LIQUID METAL-COOLED - design optimization of fast breeder, methods for calculating

- 1200 27:13956 (ANL/EBR--66) PROSPECTUS FOR OPERATING EBR-II WITH HIGH-WORTH CONTROL RODS.

Cushman, R. A.; Sehgal, B. R.; Lowery, V. W. (Argonne National Lab., Ill.). Sep 1972. Contract W-31-109-eng-38. 96p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - control rods for, design and safety analysis of high-worth, (T)

- 1201 27:13957 (FEI--306) EXPERIMENTAL-CALCULATION STUDIES OF THE PHYSICS OF THE CONTROLS OF THE BN-350 REACTOR CARRIED OUT ON THE ASSEMBLY BFS-22. Orlov, V. V.; Troyanov, M. F.; Mamontov, V. F.; (and others) (Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi Energii SSSR, Moscow. Fiziko-Energeticheskii Institut). 1972. 35p. (In Russian). Dep. NTIS (U. S. Sales Only).

BN-350 REACTOR - control elements for, mockup testing of, (E/T)

- 1202 27:13963 (HEDL-SA--409) DIFFUSION THEORY ANALYSES FOR FAST REACTOR SHIELD DESIGN. Boulette, E. T.; Marr, D. R. (Hanford Engineering Development Lab., Richland, Wash.). 1972. Contract AT(45-1)-2170. 20p. (CONF-720901--13). Dep. NTIS. From Meeting on new developments in reactor physics and shielding calculations; Kiamesha Lake, NY (12 Sep 1972).

FAST TEST REACTOR - shielding for, adequacy of diffusion theory calculations for, (E/T)
NEUTRONS, EPITHERMAL; NEUTRONS, FAST; NEUTRONS, INTERMEDIATE; NEUTRONS, THERMAL
shielding in liquid metal cooled fast reactors, adequacy of diffusion theory
calculations for, (E/T)
REACTORS, FAST - shielding for liquid metal cooled, adequacy of diffusion theory
calculations for, (E/T)
REACTORS, LIQUID METAL-COOLED - shielding for fast, adequacy of diffusion theory
calculations for, (E/T)

- 1203 27:13969 (CEA-CONF--1896) CONTROL OF TIGHTNESS OF COMPONENTS OF THE PHENIX BULK REACTOR. Blanc, B.; Roulliay, R. (Commissariat a l'Energie Atomique, Saclay (France). Centre d'Etudes Nucleaires). [nd]. 11p. (In French). (CONF-720553--1). Dep. NTIS (U. S. Sales Only). From Meeting on the detection of leaks and tightness tests; Paris, France (16 May 1972).

PHENIX FAST REACTOR - core vessel for, leak tightness of welds on

- 1204 27:13970 (CONF-721006--2) EXPERIMENTAL INVESTIGATIONS CONCERNING THE SAFETY OF SNR STRAIGHT-PIPE STEAM GENERATORS IN SODIUM--WATER REACTIONS. Dumm, K.; van Waveren, N. J. Translation of a paper from International Conference on Engineering of Fast Reactors for Safe and Reliable Operation, Karlsruhe, 9--13 October 1972. 30p. Dep. NTIS.

SNR REACTOR - steam generators for, effects of sodium-water reactions on straight-pipe, (E/T)

- 1205 27:13971 (FRNC-CONF--41) HYDROTECHNICAL PROBLEMS ASSOCIATED WITH THE STEAM GENERATORS OF PHENIX. Andro, M.; Salon, M. (Societe Stein Industrie, Paris (France)). 1972. 6p. (In French). (CONF-720648--10). Dep. NTIS (U. S. Sales Only). From 12. meeting on hydraulics; Paris, France (6 Jun 1972).

PHENIX FAST REACTOR - steam generators for, steam, water, and sodium flow conditions in, (E)

- 1206 27:13972 (NAA-SR-Memo--2662) NATURAL CONVECTIVE FLOW IN THE PRIMARY SODIUM SYSTEM AFTER A REACTOR SCRAM. Gershun, T. L. (Atoms International, Canoga Park, Calif.). 15 Apr 1958. 10p. Dep. NTIS.

HALLAM POWER REACTOR - scram of, natural convective flow in primary cooling system following, (T)

- 1207 27:13981 (ANL--7954) PERFORMANCE OF VIBRATORILY COMPACTED MIXED-OXIDE FUEL ELEMENTS IN EBR-II TO 2.7 AT. PERCENT BURNUP. Brown, F. L.; Neimark, L. A.; Ayer, J. E. (Argonne National Lab., Ill.). Jun 1970. Contract W-31-109-eng-38. 36p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, performance of vipac plutonium oxide (PuO_2)--uranium oxide (UO_2), (E)
 REACTOR FUEL ELEMENTS - performance of Type 304 stainless steel clad vipac plutonium oxide (PuO_2)--uranium oxide (UO_2) fast, (E)

- 1208 27:13984 (EURFNR--1022) DESIGN, IRRADIATION, AND NONDESTRUCTIVE POST-IRRADIATION EXAMINATION OF UO_2/PuO_2 FUEL PIN BUNDLE DFR-350. Geithoff, D.; Kummerer, K. (Kernforschungszentrum, Karlsruhe (West Germany)). Institut fuer Material und Festkoerperforschung). May 1972. 192p. (KFK--1377). Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.

REACTOR FUEL ELEMENTS - design parameters for stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pins, for liquid metal cooled fast breeder reactors
 REACTOR FUEL ELEMENTS - radiation testing of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pins, for liquid metal cooled fast breeder reactors, (E)
 REACTORS, BREEDER - fuel elements for liquid metal cooled fast, design parameters and radiation testing of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pins, (E)
 REACTORS, FAST - fuel elements for liquid metal cooled breeder, design parameters and radiation testing of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pins, (E)
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast breeder, design parameters and radiation testing of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2) pins, (E)

- 1209 27:13985 (EURFNR--1024) THEORETICAL STUDIES CONCERNING THE MEASUREMENT OF WALL TEMPERATURES ON SIMULATED FUEL RODS FOR THERMODYNAMICS EXPERIMENTS IN SODIUM. Moeller, R.; Tschoeke, H. (Kernforschungszentrum, Karlsruhe (West Germany)). Institut fuer Reaktorbauelemente). Apr 1972. 43p. (KFK--1555). Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.

REACTOR FUEL ELEMENTS - cladding of liquid metal cooled fast breeder, performance of thermocouples for measurement of temperature distribution in
 REACTORS, BREEDER - fuel element cladding for liquid metal cooled fast, performance of thermocouples for measurement of temperature distribution in
 REACTORS, FAST - fuel element cladding for liquid metal cooled breeder, performance of thermocouples for measurement of temperature distribution in
 REACTORS, LIQUID METAL-COOLED - fuel element cladding for fast breeder, performance of thermocouples for measurement of temperature distribution in
 THERMOCOUPLES - performance for measurement of temperature distribution in liquid metal cooled fast breeder reactor fuel element cladding

- 1210 27:13990 (NP--19599) FISSION PRODUCT DISTRIBUTION IN FAST REACTOR OXIDE FUELS. Powell, H. J. (United Kingdom Atomic Energy Authority, Dounreay (Scotland). Reactor Group). [1970]. 16p. Dep. NTIS (U. S. Sales Only).

PROTOTYPE FAST REACTOR - fuel pins for, temperature effects on fission product distribution in, (E)

- 1211 27:13992 (ORNL--4825) FMODEL: A FORTRAN IV COMPUTER CODE TO PREDICT IN-REACTOR BEHAVIOR OF LMFBR FUEL PINS. Homan, F. J.; Lackey, W. J.; Cox, C. M. (Oak Ridge National Lab., Tenn.). Jan 1973. Contract W-7405-eng-26. 104p. Dep. NTIS.

COMPUTER PROGRAMS - FMODEL, for liquid metal cooled fast breeder reactor fuel element performance, FORTRAN 4 for IBM 360
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, computer program for calculation of performance of plutonium oxide (PuO_2)--uranium oxide (UO_2)
 REACTOR FUEL ELEMENTS - performance of liquid metal cooled fast breeder reactor plutonium oxide (PuO_2)--uranium oxide (UO_2), computer program for calculation of

- 1212 27:13993 (PNCT--831-72-1) TOKAI WORKS SEMI-ANNUAL PROGRESS REPORT, JANUARY--JUNE 1971. (Power Reactor and Nuclear Fuel Development Corp., Tokai (Japan)). Apr 1972. 194p. Dep. NTIS (U. S. Sales Only).

CERIUM ISOTOPES Ce-144 - determination in seawater, method for
 JAPANESE EXPERIMENTAL FAST REACTOR - fuel element cladding for, test fabrication of Type 316 stainless steel
 MEMBRANE FILTERS - performance testing of HEPA

PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of rods of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation testing of rods of
 RADIATION DETECTORS - development of plutonium monitoring
 RADIATION DETECTORS, SEMICONDUCTOR (SILICON) - development of alpha counting system with
 REACTOR FUEL ELEMENTS - fabrication of plutonium oxide (PuO_2)--uranium oxide (UO_2), for
 water cooled power reactors
 REACTOR FUEL ELEMENTS - radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2),
 for water cooled power reactors
 REACTOR FUEL ELEMENTS - cladding for, test fabrication of Type 316 stainless steel
 REACTOR FUELS - reprocessing of, improvements in
 REACTORS, BOILING; REACTORS, PRESSURIZED-WATER - fuel elements for, fabrication and
 radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2)
 STRONTIUM ISOTOPES Sr-90 - determination in seawater, method for
 URANIUM ISOTOPES U-235 - enrichment of, centrifuge process for
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of rods of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation testing of rods of

- 1213 27:13996 NUCLEAR TUBES FOR FUEL CLADDING AND STEAM GENERATORS. Tverberg, J. C.; Draysey, J.; Depken, H.; Tivelius, B. Nucl. Eng. Int.; 17: No. 199, 1001-14(Dec 1972).

FAST TEST REACTOR - fuel element cladding for, fabrication of Type 316 stainless steel
 REACTOR FUEL ELEMENTS - cladding for, methods for fabricating Type 316 stainless steel
 REACTOR FUEL ELEMENTS - cladding for British, fabrication of
 STAINLESS STEEL - fabrication of fuel cladding of Type 316, methods for
 TUBES - fabrication for reactor systems, European facilities for

- 1214 27:14031 (AI-AEC--13041) LMFBR SAFETY PROGRAMS. Quarterly Technical Progress Report, July--September 1972. (Atomics International, Canoga Park, Calif.). 15 Nov 1972. Contract AT(04-3)-824. 18p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - safety programs during July to September 1972
 LIQUID METAL FAST BREEDER REACTOR - coolant combustion accidents in, characteristics of, (E/T)
 SODIUM - combustion in liquid metal cooled fast breeder reactor accidents, characteristics of, (E/T)

- 1215 27:14036 (JPRS--57675) SOME CHARACTERISTICS OF A LOCAL ACCIDENT IN THE CORE OF A FAST REACTOR. Bagdasarov, Yu. E.; Kuznetsov, I. A.; Buksha, Yu. K. Translation of Nekotoryye Kharakteristiki Lokal'noy Avarii v Aktivnoy Zone Bystrogo Reaktora. 17p. NTIS.

REACTOR FUEL ELEMENTS; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling channel blockage in sodium cooled, local heat transfer effects of, (T)

- 1216 27:14037 (TRG-Report--2366) PRELIMINARY EXPERIMENTAL STUDIES OF THE INTERACTION OF WATER WITH MOLTEN LEAD AND MOLTEN SALT MIXTURES. Hillary, J. J.; Curry, P.; Taylor, L. R. (United Kingdom Atomic Energy Authority, Risley (England). Reactor Group). Dec 1972. 20p. (CONF-721006--3). Dep. NTIS (U. S. Sales Only). From International conference on engineering of fast reactors for safe and reliable operation; Karlsruhe, Germany (9 Oct 1972).

FUSED SALTS - interaction with water, pressure pulses from, (E)
 LEAD - interaction of molten, with water, pressure pulses from, (E)
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel meltdown in sodium cooled, fuel-coolant interactions following, (E)
 WATER - interaction with molten lead, pressure pulses from, (E)

- 1217 27:14055 PROSPECTS FOR FAST NEUTRON REACTORS IN FRANCE. Denielou, G. (CEN de Cadarache, Saint-Paul-les-Durance, France); Yvon, J. Rev. Fr. Elec.; 45: No. 238, 10-17 (1972). (In French).

REACTORS, FAST - design concept for French 1200-MW(e) power, as follow-up to Rapsodie Fortissimo and Phenix
 REACTORS, FRANCE - design concept for 1200-MW(e) fast, as follow-up to Rapsodie Fortissimo and Phenix
 REACTORS, POWER - design concept for French 1200-MW(e), as follow-up to Rapsodie Fortissimo and Phenix

- 1218 27:14124 REACTOR CONSTRUCTION: SODIUM-COOLED FAST BREEDER REACTOR SNR-300. Nucleus (Bonn); 18: No. 11, 91-5(1972). (In German).
SNR REACTOR - development of, status of
SNR REACTOR - cost estimates on
- 1219 27:14248 (ANL/EBR--67) PRELIMINARY DESIGN AND TEST OF A PROPOSED TURBINE-DRIVEN OSCILLATOR FOR EBR-II. Cole, J. H.; Karvinen, J. R.; Price, C. C. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Oct 1972. Contract W-31-109-Eng-38. 31p. Dep. NTIS.
EXPERIMENTAL BREEDER REACTOR-II - oscillator for, design parameters and water test of turbine driven
REACTOR OSCILLATORS - design parameters for turbine driven, for liquid metal cooled fast test reactor
REACTOR OSCILLATORS - performance testing of turbine driven, for liquid metal cooled fast test reactor
- 1220 27:14249 (BNWL-TR--79) INVESTIGATION OF THE DISTRIBUTION OF CAVITIES OVER THE PERIMETER OF X18H9T STEEL FUEL ELEMENT CANS OF THE BR-5 REACTOR. Rentov, V. F.; Farkhutdinov, K. G.; Ladygin, A. Ya. Translated for Battelle Pacific Northwest Labs., Richland, Wash., from Russian Preprint. 10p. Dep. NTIS.
REACTORS, RESEARCH - fuel elements for BR-5, porosity distribution in steel cans for, (E)
- 1221 27:14251 (CEA-CONF--2076) DISAGREEMENT BETWEEN THEORETICAL AND EXPERIMENTAL FISSION YIELDS OF NOBLE GASES FOR FAST NEUTRONS: TEST ON THE FUEL OF THE RAPSODIE REACTOR. Kryger, B. (Commissariat a l'Energie Atomique, Fontenay-aux-Roses (France). Centre d'Etudes Nucleaires). 1970. 9p. (In French). (CONF-720843--4). Dep. NTIS (U. S. Sales Only). From Panel on the behaviour and chemical state of fission products in irradiated fuel; Vienna, Austria (7 Aug 1972).
CADARACHE REACTORS (RAPSODIE) - fuel elements for, fission product release from plutonium oxide (PuO_2)--uranium oxide (UO_2), (E/T)
FISSION PRODUCTS - release from plutonium oxide (PuO_2)--uranium oxide (UO_2) fuel elements, (E/T)
PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fission product release from fuel rods of
REACTOR FUEL ELEMENTS - fission product release from plutonium oxide (PuO_2)--uranium oxide (UO_2), (E/T)
URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fission product release from fuel rods of
- 1222 27:14255 (FEI--273) INVESTIGATION OF THE DISTRIBUTION OF CAVITIES OVER THE PERIMETER OF X18H9T STEEL FUEL ELEMENT CANS OF THE BR-5 REACTOR. Rentov, V. F.; Farkhutdinov, K. G.; Ladygin, A. Ya. (Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi Energii SSSR, Obninsk. Fiziko-Energeticheskii Institut). 1972. 10p. Dep. NTIS (U. S. Sales Only).
REACTORS, RESEARCH - fuel element cladding for BR-5, porosity distribution in Type 304 stainless steel, (E)
- 1223 27:14259 (HEDL-TME--71-124) OVERALL OUTLINE OF RESPONSIBILITY FOR CONSTRUCTION OF THE FAST FLUX TEST FACILITY. (Hanford Engineering Development Lab., Richland, Wash.). Sep 1971. Contract AT(45-1)-2170. 10p. Dep. NTIS.
FAST FLUX TEST FACILITY; FAST TEST REACTOR - construction of, responsibilities of organizations for
- 1224 27:14260 (HEDL-TME--72-111) IVHM PROTOTYPE GRAPPLE TESTS WITH SIMULATED CORE MOCKUP (SCM). Kocher, L. F. (Hanford Engineering Development Lab., Richland, Wash.). Oct 1972. Contract AT(45-1)-2170. 48p. Dep. NTIS.
FAST TEST REACTOR - remote handling equipment for, performance testing of grapple for in-vessel
REMOTE-HANDLING EQUIPMENT - performance testing of grapple for in-vessel, for liquid sodium cooled fast test reactor

- 1225 27:14261 (HEDL-TME--72-119) FTR DRIVER PISTON RING WATER LEAKAGE RATES. Collingham, R. E.; Hill, V. R. (Hanford Engineering Development Lab., Richland, Wash.). Oct 1972. Contract AT(45-1)-2170. 61p. Dep. NTIS.
- FAST TEST REACTOR - fuel assembly nozzles for, water leakage rates for piston rings for
- 1226 27:14262 (HEDL-TME--72-135) MULTIGROUP REACTION CROSS SECTIONS FOR FTR APPLICATION. Kidman, R. B. (Hanford Engineering Development Lab., Richland, Wash.). Oct 1972. Contract AT(45-1)-2170. 41p. Dep. NTIS.
- FAST TEST REACTOR - neutron flux distributions in, multigroup reaction cross sections for, (T)
- 1227 27:14267 (RT/ING--(72)10) PROBLEMS CONNECTED WITH SODIUM FUEL INTERACTION IN THE PEC REACTOR SAFETY EVALUATION. De Cecco, L.; Santandrea, E. (Comitato Nazionale Energia Nucleare, Rome (Italy). Divisione Affari Internazionali e Studi Economici). 23 Jun 1972. 27p. (RVT-PEC--610). Dep. NTIS (U. S. Sales Only).
- PEC FAST TEST REACTOR - fuel meltdown in, evaluation of liquid sodium and molten fuel interaction for
- 1228 27:14276 SUBSTITUTION EXPERIMENTS. Caumette, P. (CEN, Cadarache, France). Bull. Inform. Sci. Tech. (Paris); No. 170, 37-40(May 1972). (In French).
- CRITICAL ASSEMBLIES - lattice substitution experiments in Masurca
FONTENAY-AUX-ROSES REACTORS - lattice substitution experiments in Marius
REACTORS, RESEARCH - lattice substitution experiments in Cesar
- 1229 27:15140 (LA--5067) ADVANCED PLUTONIUM FUELS PROGRAM. Quarterly Progress Report, April 1--June 30, 1972. Baker, R. D. (comp.) (Los Alamos Scientific Lab., N. Mex.). Oct 1972. Contract W-7405-eng-36. 45p. Dep. NTIS.
- BORON CARBIDES - chemical properties of, analytical standards for determining
HOT CELLS - development for examination of irradiated reactor fuels
LIQUID METAL FAST BREEDER REACTOR - fuels for, development of analytical standards for
OXYGEN - determination in irradiated fuels and cladding, method for
PLUTONIUM - determination in reactor fuels, coulometric method for
PLUTONIUM CARBIDES - PuC--UC, preparation of single-phase fuels of, for EBR-II testing
PLUTONIUM CARBIDES - PuC--UC, radiation effects on fuels of, summary of EBR-II studies on
PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, reduction to mixed carbide fuels, carbothermic method for
PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, enthalpy of irradiated fuels of, at high temperatures, data summary on
RADIOISOTOPE SCANNING - equipment and method for analysis of fuel elements
REACTOR FUEL ELEMENTS - microstructure of, description of equipment for studies of
REACTOR FUELS - analysis for plutonium and uranium, coulometric method for
REACTOR FUELS - analysis of irradiated, for oxygen, method for
REACTOR FUELS - testing of carbide and nitride, in TREAT, program plans for
REMOTE-HANDLING EQUIPMENT - development for radiographic examination of irradiated fuels
SHIELDED CONTAINERS - description for shipping fuel pins
URANIUM - determination in reactor fuels, coulometric method for
URANIUM CARBIDES - PuC--UC, preparation of single-phase fuels of, for EBR-II testing
URANIUM CARBIDES - PuC--UC, radiation effects on fuels of, summary of EBR-II studies on
URANIUM OXIDES UO₂ - PuO₂--UO₂, reduction to mixed carbide fuels, carbothermic method for
URANIUM OXIDES UO₂ - PuO₂--UO₂, enthalpy of irradiated fuels of, at high temperatures, data summary on
URANIUM OXIDES UO₂ - enthalpy at 250 to 3200°K
- 1230 27:15189 USE OF ALLOYS WITH HIGH NICKEL CONTENT IN NUCLEAR PLANTS. Galletto, M.; Portisch, H. (Nickel Alloys International SA, Milan). pp 77-89 of Giornate dell'Energia Nucleare 1970. Aspetti Meccanici e Costruttivi della Tecnica Nucleare. Rome; Comitato Nazionale Energia Nucleare (1972). (In Italian). From Proceedings of 1970 nuclear energy conference; Milan, Italy (10 Dec 1970). See CONF-701231.
- NICKEL ALLOYS AND SYSTEMS - properties of dilute nickel-base, for use in sodium-cooled reactors
REACTORS, LIQUID METAL-COOLED - components for sodium-cooled, properties of dilute nickel-base alloys for use in

SODIUM - corrosive effects of liquid, on dilute nickel-base alloys

- 1231 27:15206 EXPLOSIVE WELDING. Albertini, C.; Golinelli, P.; Montagnani, M.; Verzelletti, G. (CCR-EURATOM, Ispra, Italy). pp 423-34 of Giornate dell'Energia Nucleare 1970. Aspetti Meccanici e Costruttivi della Tecnica Nucleare. Rome; Comitato Nazionale Energia Nucleare (1972). (In Italian). From Proceedings of 1970 nuclear energy conference; Milan, Italy (10 Dec 1970). See CONF-701231.
- REACTORS, FAST - fuel elements for sodium-cooled, explosive method for clad welding for
 REACTORS, HEAVY WATER-MODERATED - pressure tubes for, explosive welding of
 steel--zirconium
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast, explosive method for clad welding
 for
 STEEL - joining to zirconium, explosive welding method for
 ZIRCONIUM - joining to steel, explosive welding method for
- 1232 27:16488 (CONF-720662--1) FAST REACTORS IN BRITAIN. Campbell, R. H. (Nuclear Power Group Ltd., Knutsford (England)). Jun 1972. 18p. Dep. NTIS (U. S. Sales Only). From Seminar on nuclear energy; Barcelona, Spain (6 Jun 1972).
- DOUNREAY FAST REACTOR - operation of, summary of
 PROTOTYPE FAST REACTOR - design parameters of
 PROTOTYPE FAST REACTOR - construction of, progress in
- 1233 27:16490 (KFK--1272/2) FAST BREEDER PROJECT. Second Quarterly Report, 1972. (Kernforschungszentrum, Karlsruhe (West Germany)). Sep 1972. 226p. (In German). (EUR--4847). Dep. NTIS (U. S. Sales Only).
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, during April to June 1972
- 1234 27:16491 REACTOR DEVELOPMENT FOR NUCLEAR POWER STATIONS. Voigt, O.; Domin, G. Energ. Tech.; 24: No. 9, 275-82(1972). (In German).
- REACTORS, BOILING; REACTORS, GAS-COOLED; REACTORS, POWER; REACTORS, PRESSURIZED-WATER
 SNR REACTOR - development of, economic, environmental, and safety aspects of
- 1235 27:16495 (CONF-701074--7) STUDY OF THE PHYSICAL CHARACTERISTICS OF THE BOR-60 REACTOR. Kazachkovskii, O. D.; Alekseev, I. N.; Baranov, S. M.; Gadzhiev, G. I.; Gryazev, V. M.; Karatsuba, Yu. M.; Krasnoyarov, N. V.; Lychagin, V. N.; Pofanov, V. S. Translated from pp 504-24 of Proceedings of the Scientific and Technical Conference on Atomic Power, Fuel Cycles, and the Radiation Study of Materials, Ul'yanovsk, USSR, 5--10 October 1970, Vol. I. 19p. Dep. NTIS.
- BOR-60 REACTOR - physics characteristics of, (E)
- 1236 27:16496 (CONF-701214, Paper No. 4) DEVELOPMENT OF ADVANCED FAST REACTORS IN THE U.S.A. Hermansky, Bedrich (Technical Univ., Prague). 20p. (In Czech). From 5. conference on nuclear power; Piestany, Czechoslovakia (1 Dec 1970).
- REACTORS, FAST - development in U.S. of power, review of
 REACTORS, POWER - development in U.S. of fast, review of
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - design characteristics of
- 1237 27:16497 (GULF-RT-A--10998) FAST REACTOR SPECTRUM MEASUREMENTS. Technical Summary Report, February 1, 1971--January 31, 1972. Young, J. C.; Neill, J. M.; Verbinski, V. V. (Gulf Radiation Technology, San Diego, Calif.). 30 Oct 1972. Contract AT(04-3)-167. 80p. Dep. NTIS.
- EXPONENTIAL PILES - design characteristics of STSF-9 and STSF-10
 LIQUID METAL FAST BREEDER REACTOR - neutron spectra characteristics for, measurement of
 fast, (E)
 LIQUID METAL FAST BREEDER REACTOR - neutron flux in, effects of tantalum and boron carbide
 (B4C) control rods on distribution of

NEUTRONS - flux distribution in liquid metal cooled fast breeder reactor, effects of tantalum and boron carbide control rods on
 NEUTRONS, FAST - spectra characteristics for liquid metal cooled fast breeder reactor, measurement of, (E)
 NEUTRONS, FAST - spectra in exponential piles, performance of helium-3 and proton-recoil proportional counters for measurement of
 RADIATION DETECTORS, PROPORTIONAL - performance of helium-3 and proton-recoil, for measurement of fast neutron spectra in exponential piles
 REACTOR CONTROL ELEMENTS - effects on liquid metal cooled fast reactor neutron flux distribution of tantalum and boron carbide (B4C)

- 1238 27:16502 EBRFLOW: a computer program for predicting the coolant flow distribution in the Experimental Breeder Reactor-II. Gopalakrishnan, A.; Gillette, J.L. (Argonne National Lab., IL) Nucl. Technol.; 17: No. 3, 205-216(Mar 1973).

EXPERIMENTAL BREEDER REACTOR-II - fuel subassemblies in, EBRFLOW code calculations of coolant flow distributions in, (E/T)

- 1239 27:16503 (CONF-701074--10) MEASUREMENT OF THE SODIUM FLOW RATE AND LEVEL IN FAST POWER REACTORS. Taranin, V. D.; Petrenko, A. A.; Kuznetsov, I. A.; Danilov, M. A.; Loginov, I. I.; Tavrovskii, I. I.; Radchenko, V. A. Translated from pp 620-50 of Proceedings of the Scientific and Technical Conference on Atomic Power, Fuel Cycles, and the Radiation Study of Materials, Ul'yanovsk, USSR, 5--10 October 1970, Vol. I. 25p. Dep. NTIS.

FLOWMETERS - design and performance of electromagnetic, for sodium flow in fast power reactors
 LEVEL INDICATORS - design of inductive, for high-temperature sodium in fast power reactors
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - cooling systems for, design of equipment for measuring flow and level of sodium in
 SODIUM - flow in fast power reactors, design and performance of electromagnetic meters for measuring
 SODIUM - level in fast power reactor, design of inductive meter for measuring high-temperature

- 1240 27:16505 (RT/ING--(72)17) Instrumentation (nonnuclear) for liquid metal reactors: bibliographic research for the period 1960--1971. Pia, S. (COMITATO NAZIONALE PER L'ENERGIA NUCLEARE, ROME (ITALY)). 24 Jul 1972. 258p. (In Italian). Dep. NTIS (U.S. Sales Only).

BIBLIOGRAPHIES - on liquid metal cooled reactor nonnuclear instrumentation for 1960 to 1971
 REACTORS, LIQUID METAL-COOLED - instrumentation for, bibliography for 1960 to 1971 nonnuclear

- 1241 27:16509 Breakdown pulse noise in insulated systems for LMFBR application. Schemmel, R.R.; Philipp, L.D.; Stringer, J.L. (Hanford Engineering Development Lab., Richland, WA) Nucl. Technol.; 17: No. 3, 198-204(Mar 1973).

CABLES - electric noise in metal-oxide insulated, effects of temperature and applied dc voltage on breakdown pulse, (E)
 FAST FLUX TEST FACILITY; LIQUID METAL FAST BREEDER REACTOR - electric cables for, breakdown pulse noise in metal-oxide insulated, (E)

- 1242 27:16512 (CONF-701074--9) SINGLE-PASS STEAM GENERATOR WITH SODIUM COOLANT. Stekol'nikov, V. V.; Bagdasarov, Yu. E.; Titov, V. F.; Bogdanovich, P. N.; Kulikov, E. V.; Fedorov, L. F.; Poplavskii, V. M. Translated from pp 595-603 of Proceedings of the Scientific and Technical Conference on Atomic Power, Fuel Cycles, and the Radiation Study of Materials, Ul'yanovsk, USSR, 5--10 October 1970, Vol. I. 8p. Dep. NTIS.

BOILERS - design of 500 MW(t) single-pass
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - steam generators for sodium cooled, design of single-pass vessel-type

- 1243 27:16517 (CONF-711112--8) ELASTIC-PLASTIC-CREEP ANALYSIS OF CYLINDRICAL PRESSURE VESSELS SUBJECTED TO CYCLIC THERMAL LOADING. Minami, H. M. Jr.; Roberts, G. O. (Atomics International, Canoga Park, Calif.). [nd]. Contract AT(04-3)-700. 59p. Dep. NTIS. From

ASME Winter annual meeting; Washington, D. C. (28 Nov 1971).

LIQUID METAL FAST BREEDER REACTOR - pressure vessel for, effects of cyclic thermal stresses on elastic-plastic-creep characteristics of
PRESSURE VESSELS - performance of liquid metal cooled breeder reactor, effects of cyclic thermal stresses on elastic-plastic-creep

- 1244 27:16525 MASS TRANSPORT OF STAINLESS STEEL CORROSION PRODUCTS IN FLOWING LIQUID SODIUM. Claxton, K. T.; Collier, J. G. (Atomic Energy Research Establishment, Harwell, Eng.). J. Brit. Nucl. Energy Soc.; 12: No. 1, 63-75(Jan 1973).

COBALT ISOTOPES Co-60; IRON ISOTOPES Fe-59; MANGANESE ISOTOPES Mn-54 - transport and deposition in sodium reactor systems, loop study of simulated, (E)
REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, transport and deposition of stainless steel corrosion products in, (E)

- 1245 27:16526 INVESTIGATIONS CONCERNING THE PROBLEM OF LOCAL COOLING DISTURBANCES IN FUEL ELEMENTS OF SODIUM COOLED REACTORS. Gast, K.; Kirsch, D.; Schleisiek, K. (Kernforschungszentrum, Karlsruhe, Ger.). KFK Nachr.; 4: No. 3, 14-18(1972). (In German).

REACTORS, FAST - coolant boiling in sodium-cooled, initiation of local
REACTORS, LIQUID METAL-COOLED - coolant boiling in fast, initiation of local
SNR REACTOR - coolant boiling in, initiation of local

- 1246 27:16531 (CONF-721112--6) POTENTIAL FUEL FAILURE PROPAGATION DUE TO FISSION-GAS RELEASE IN LMFBR SUBASSEMBLIES. Van Erp, J. B.; Chawla, T. C.; Wilson, R. E. (Argonne National Lab., Ill.). 1972. 16p. Dep. NTIS. From American Society of Mechanical Engineers winter meeting; New York, NY (26 Nov 1972).

FISSION PRODUCTS - effects on failure propagation of liquid metal cooled fuel pins
LIQUID METAL FAST BREEDER REACTOR - fuel element assemblies for, effects of fission product release on failure propagation in pin
REACTOR FUEL ELEMENTS - failure of liquid metal cooled pins, effects of fission product release on propagation of

- 1247 27:16534 (HEDL-TME--72-146) INFRARED NDT OF ELECTRICAL FUEL PIN SIMULATORS USED IN LMFBR THERMAL HYDRAULIC TESTS. Green, D. R.; Collingham, R. E.; Fischer, L. H. (Hanford Engineering Development Lab., Richland, Wash.). Nov 1972. Contract AT(45-1)-2170. 24p. Dep. NTIS.

HEATERS - testing of fuel pin simulator electric, infrared nondestructive
LIQUID METAL FAST BREEDER REACTOR - fuel pins for, infrared nondestructive testing of electric heater simulators for
MATERIALS TESTING, NONDESTRUCTIVE - method for infrared inspection of electric heater simulators for liquid metal cooled fuel pins
REACTOR FUEL ELEMENTS - simulators for liquid metal cooled pins, infrared nondestructive testing of electric heater

- 1248 27:16536 (RDT-E--6-17-T(8-72)) CORE RESTRAINT MECHANISM FOR SODIUM COOLED REACTORS (FABRICATION ONLY). (Division of Reactor Development and Technology (AEC), Washington, D. C.). Oct 1972. 20p. RSO.

REACTORS, LIQUID METAL-COOLED - core restraint for, standard for fabrication of
STANDARDS - core restraint for liquid metal cooled reactors, fabrication of

- 1249 27:16538 APPROXIMATE ANALYSIS OF RAPID FISSION GAS RELEASE IN A SODIUM COOLED FAST REACTOR SUB-ASSEMBLY. Judd, A. M. (Cambridge Univ., Eng.). J. Brit. Nucl. Energy Soc.; 12: No. 1, 43-46(Jan 1973).

FISSION PRODUCTS - release from failed fuel pin in sodium-cooled fast reactor subassembly, effects on coolant flow of, (T)
REACTOR FUEL ELEMENTS - failure of sodium cooled pin-type, effects on coolant flow of fission gas release from, (T)
REACTORS, BREEDER - fission gas release from failed fuel pin in subassembly of fast sodium, effects on coolant flow of, (T)

REACTORS, FAST - fission gas release from failed fuel pin in subassembly of sodium-cooled, effects on coolant flow of, (T)
 REACTORS, LIQUID METAL-COOLED - fission gas release from failed fuel pin in subassembly of fast sodium, effects on coolant flow of, (T)

- 1250 27:16539 FUEL PIN FAILURE PROPAGATION IN A SODIUM COOLED FAST REACTOR. Judd, A. M. (Cambridge Univ., Eng.). J. Brit. Nucl. Energy Soc.; 12: No. 1, 35-42(Jan 1973).

REACTOR FUEL ELEMENTS - failure propagation of pins in fast sodium reactor, analysis of, (T)
 REACTORS, FAST - fuel pin failure propagation in sodium-cooled, (T)
 REACTORS, LIQUID METAL-COOLED - fuel pin failure propagation in fast sodium, analysis of, (T)

- 1251 27:16549 SIGNIFICANCE OF SEFOR. Arterburn, J. O.; Hikido, K. Elec. Light Power (Boston); 51: No. 1, 40-2(Jan 1973).

REACTORS, BREEDER - development of liquid metal cooled fast, significance of SEFOR operating experience to
 REACTORS, FAST - development of liquid metal cooled breeder, significance of SEFOR operating experience to
 REACTORS, LIQUID METAL-COOLED - development of fast breeder, significance of SEFOR operating experience to
 REACTORS, POWER - development of liquid metal cooled fast breeder, significance of SEFOR operating experience to
 SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - operating experience with, significance to liquid metal cooled fast breeder reactor program

- 1252 27:16550 TOWARDS A 1,000-MWe LMFBR: THE INFLUENCE OF COMPONENT DEVELOPMENT, PROTOTYPES, AND CONSTRUCTION EXPERIENCE. Wolfe, Bertram; Gibson, A. S.; Murphy, P. M.; Sawle, D. R. (General Electric Co., Sunnyvale, CA). Nucl. News; 16: No. 1, 35-42(Jan 1973).

LIQUID METAL FAST BREEDER REACTOR - development of large commercial, role of demonstration facilities in

- 1253 27:16551 LMFBR: KEYS TO INDUSTRIAL SUCCESS. Taylor, J. H.; Petrick, N. A. Nucl. News; 16: No. 1, 43-8(Jan 1973).

LIQUID METAL FAST BREEDER REACTOR - development of commercial, role of Westinghouse demonstration plant in

- 1254 27:16565 TEST SECTION OF A STEAM GENERATOR IN THE FRAMEWORK OF THE DEVELOPMENT OF THE HEAT EXCHANGERS OF A FAST SODIUM REACTOR. Casalini, P.; Valentini, P.; Avanzini, P. G.; Di Leo, S. pp 197-258 of Giornate dell'Energia Nucleare 1970. Aspetti Meccanici e Costruttivi della Tecnica Nucleare. Rome; Comitato Nazionale Energia Nucleare (1972). (In Italian). From Proceedings of 1970 nuclear energy conference; Milan, Italy (10 Dec 1970). See CONF-701231.

BOILERS - development in Italy of liquid sodium heated
 REACTORS, FAST - steam generators for liquid sodium cooled power, development program in Italy for
 REACTORS, LIQUID METAL-COOLED - steam generators for fast power, development program in Italy for
 REACTORS, POWER - steam generators for liquid metal cooled fast, development program in Italy for

- 1255 27:16595 HIGH INTEGRITY SODIUM STEAM RAISING UNIT. Linning, D. (United Kingdom Atomic Energy Authority, Risley, Eng.). Nucl. Eng. Int.; 18: No. 200, 46-48(Jan 1973).

BOILERS - design of high-integrity sodium-heated
 REACTORS, LIQUID METAL-COOLED - steam generators for sodium cooled, design of high-integrity

- 1256 27:16659 (DOCKET-50016--180) Enrico Fermi Atomic Power Plant, Unit 1. Technical

specifications, proposed change. (POWER REACTOR DEVELOPMENT CO., DETROIT, MICH.). 24 Jan 1973. 1p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - subcritical requirements for secured condition in, revised specifications for

- 1257 27:16807 (CONF-701074--8) EXPERIMENTAL STUDY OF METHODS OF DETECTING RUPTURES IN NON-HERMETICALLY SEALED FUEL ELEMENTS OF THE BR-5 REACTOR. Aristarkhov, N. N.; Efimov, I. A.; Mamaev, L. I.; Nikulin, M. P. Translated from pp 555-76 of Proceedings of the Scientific and Technical Conference on Atomic Power, Fuel Cycles, and the Radiation Study of Materials, Ul'yanovsk, USSR, 5--10 October 1970, Vol. I. 16p. Dep. NTIS.

LEAKS - detection in hermetically sealed spent fuel element assemblies
REACTOR FUEL ELEMENTS - cladding on spent sodium cooled, leak testing of hermetically sealed
REACTORS, RESEARCH - fuel element assemblies from BR-5, leak testing of hermetically sealed spent, (E)

- 1258 27:16816 (CONF-721109--16) RECOMMENDED CONSTITUTIVE EQUATIONS FOR FFTF USE AND APPLICATION TO THE ANALYSIS OF STRUCTURES. Greenstreet, W. L. (Oak Ridge National Lab., Tenn.). 1972. Contract W-7405-eng-26. 22p. Dep. NTIS. From International conference on nuclear solutions to world energy problems; Washington, DC (12 Nov 1972).

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - materials for, constitutive equations analysis of stress-strain characteristics of Type 304 and Type 316 stainless steel, (E/T)
STAINLESS STEEL - performance of Type 304 and Type 316, constitutive equations analysis of stress-strain, (E/T)

- 1259 27:16818 (HEDL-TME--72-104) TRANSIENT ANALYSIS OF AN IVHM GRAPPLE IMPACT TEST. Hill, R. G. (Hanford Engineering Development Lab., Richland, Wash.). Oct 1972. Contract AT(45-1)-2170. 21p. Dep. NTIS.

FAST TEST REACTOR - fuel handling machine for, impact load testing of in-vessel, (E/T)
FAST TEST REACTOR - fuel duct for, impact load testing of, (E/T)

- 1260 27:16827 DEVELOPMENT OF THE FUEL HANDLING FACILITY FOR SODIUM-COOLED FAST BREEDER REACTOR. Hotta, O.; Yoshida, N. (Fuji Electric Co. Ltd., Kawasaki, Japan). Karyoku Hatsuden; 23: No. 5, 515-24(May 1972). (In Japanese).

JAPANESE EXPERIMENTAL FAST REACTOR - fuel handling equipment for, design and performance of

- 1261 27:17195 Liquid-metal cooling systems for high temperatures. Rajakovics, G.; Gabernig, H.; Hanisch, H. Berg- Huettenmaenn. Monatsh.; 116: No. 3, 98-100(Mar 1971). (In German).

HEAT EXCHANGERS - development of liquid metal-cooled, for high-temperature nuclear technology
REACTORS, LIQUID METAL-COOLED - cooling systems for, development of
WATER - evaporation of radioactive waste-containing, at Seibersdorf Reactor Center, development of liquid metal heat exchangers for

- 1262 27:17304 (HEDL-SA--192) Long-term operational performance of fission counters in high gamma flux and temperature environments. Hoitink, N.C.; Thompson, D.C. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 21 Sep 1971. Contract AT(45-1)-2170. 23p. (CONF-711111--35). Dep. NTIS.

FAST TEST REACTOR - neutron flux in, performance of commercially available neutron detectors for measuring
NEUTRONS - flux measurements in FTR, performance of commercially available neutron detectors for
RADIATION DETECTORS, FISSION CHAMBER - performance of commercially available, for neutron flux measurements in FTR

- 1263 27:17325 DESIGN AND CONSTRUCTION OF RADIOPROTECTION MONITORING PANELS FOR REACTORS. Arnaud, R.; Lucas, G.; Nicolo, R. (Etablissements Merlin et Gerin, Grenoble, France). pp 797-816 of New Trends in Radiation Protection. Montrouge, France; Societe Francaise de Radioprotection (1972). (In French). From 6. international congress on new trends in radiation protection; Bordeaux, France (27 Mar 1972). See CONF-720328.
- DATA ACQUISITION SYSTEMS - development for radioprotection monitoring panel for CEA reactor monitoring stations
 PHENIX FAST REACTOR - radiation protection at, computer monitored panel for
 RADIATION MONITORING - equipment for reactor, design and construction of computer monitored panel
- 1264 27:17685 (COO--3019-2) ENVIRONMENTAL BEHAVIOR OF RADIOACTIVE SODIUM: TRANSPORT, UPTAKE, AND POPULATION DOSE. Tadmor, J. (Harvard Univ., Boston, Mass. Harvard Air Cleaning Lab.). Oct 1972. 117p. Dep. NTIS.
- BETA PARTICLES; GAMMA RADIATION - dose to man following uptake of sodium-22 or sodium-24
 LIQUID METAL FAST BREEDER REACTOR - coolant fires in, hazards to human populations from release of sodium-22 and sodium-24 to environment during
 MAN - radiation dose to, following uptake of sodium-22 or sodium-24, β and γ
 SODIUM - fires in reactor coolant, hazards to human populations from release of sodium-22 and sodium-24 to environment during
 SODIUM ISOTOPES Na-22; SODIUM ISOTOPES Na-24 - transport through environment and food chains to man following release during reactor coolant fires, relation to radiation burden of human population
- 1265 27:17729 (LA--5106) ADVANCED PLUTONIUM FUELS PROGRAM. Quarterly Progress Report, July 1--September 30, 1972. Baker, R. D. (comp.) (Los Alamos Scientific Lab., N. Mex.). Nov 1972. Contract W-7405-eng-36. 26p. Dep. NTIS.
- BORON - determination in boron carbide, development of methods for
 BORON CARBIDES - analysis for boron, development of methods for
 FISSION PRODUCTS - distribution in mixed oxide fuel pins, gamma scan measurement of
 HOT CELLS - operation of, for examination and handling of LMFBR fuels
 LIQUID METAL FAST BREEDER REACTOR - radiation effects on fuel materials for, neutron
 NEUTRONS - effects on fuel materials for LMFBR
 PLUTONIUM - determination in irradiated mixed oxide fuels, coulometric
 PLUTONIUM CARBIDES - PuC--UC, radiation effects on properties of clad fuels of, ERB-II and TREAT data summary on
 PLUTONIUM NITRIDES - PuN--UN, radiation effects on properties of clad fuels of, EBR-II and TREAT test data summary on
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, fission product distribution in irradiated fuel pins of, gamma scan measurement of
 REACTOR FUELS - burnup of mixed oxide, development of methods for measuring
 URANIUM - determination in irradiated mixed oxide fuels, coulometric
 URANIUM CARBIDES; URANIUM CARBIDES - PuC--UC, production of fuels of, by carbothermic reduction of mixed oxides
 URANIUM CARBIDES - PuC--UC, radiation effects on properties of clad fuels of, ERB-II and TREAT data summary on
 URANIUM NITRIDES - PuN--UN, radiation effects on properties of clad fuels of, EBR-II and TREAT test data summary on
 URANIUM OXIDES UO₂ - PuO₂--UO₂, fission product distribution in irradiated fuel pins of, gamma scan measurement of
- 1266 27:17950 (JAPFNR--71) Outlines of material monitoring facility. (POWER REACTOR AND NUCLEAR FUEL DEVELOPMENT CORP., TOKAI (JAPAN).). Mar 1972. 56p. (PNC-N--72-8). Dep. NTIS (U.S. Sales Only).
- HOT CELLS - description of JOYO reactor
 JAPANESE EXPERIMENTAL FAST REACTOR - materials for, facilities for post-irradiation testing of
 MATERIALS TESTING - facilities for post-irradiation, description of JOYO reactor
- 1267 27:19058 (JAPFNR--73) Fast breeder reactor development at PNC, Japan. (POWER REACTOR AND NUCLEAR FUEL DEVELOPMENT CORP., TOKAI (JAPAN).). Dec 1972. 7p. (PNC-N--72-36). Dep. NTIS (U.S. Sales Only).
- JAPANESE EXPERIMENTAL FAST REACTOR; JAPANESE PROTOTYPE FAST BREEDER REACTOR - development of, status summary on

- 1268 27:19065 Bonn will sponsor research and technology by 6.5 billion German Mark. The fourth atomic energy program gives new impetus to the reactor development. Welt (Hamburg); No. 249, 13p.(1972). (In German).
- FEDERAL REPUBLIC OF GERMANY - reactor development program to 1975 for
 REACTORS, LIQUID METAL-COOLED; REACTORS, MARINE; THORIUM HIGH-TEMPERATURE REACTOR
 development in West Germany, program to 1975 for
 URANIUM - enrichment in West Germany, program to 1975 for
- 1269 27:19070 (COO--3060-4) ECONOMICS OF FUEL DEPLETION IN FAST BREEDER REACTOR BLANKETS. Brewer, S. T.; Mason, E. A.; Driscoll, M. J. (Massachusetts Inst. of Tech., Cambridge. Dept. of Nuclear Engineering). Nov 1972. Contract AT(11-1)-3060. 342p. (MITNE--123). Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - core for 1000 MW(e), effects of radial blanket reflector configuration and management on optimum economic
 LIQUID METAL FAST BREEDER REACTOR - fuel costs for 1000 MW(e), effects of radial blanket reflector configuration and management on
- 1270 27:19072 (EURFNR--1027) Fast Breeder Project. First quarterly report, January 1--March 31, 1972. Hueper, R. (comp.) (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY).). Jun 1972. 244p. (KFK--1272/1; EUR--4844). Dep. NTIS. Work performed under United States--Euratom Fast Reactor Exchange Program.
- PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , radiation testing of liquid metal cooled fast breeder reactor fuel rods
 REACTOR FUEL ELEMENTS - radiation testing of liquid metal cooled plutonium oxide (PuO_2)--uranium oxide (UO_2)
 REACTORS, BREEDER - development in Federal Republic of Germany of liquid metal cooled fast, January to April 1972
 REACTORS, BREEDER - physics calculations for liquid metal cooled fast
 REACTORS, BREEDER - fuel elements for liquid metal cooled fast, radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2)
 REACTORS, FAST - development in Federal Republic of Germany of liquid metal cooled breeder, January to April 1972
 REACTORS, FAST - physics calculations for liquid metal cooled breeder
 REACTORS, FAST - fuel elements for liquid metal cooled breeder, radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2)
 REACTORS, LIQUID METAL-COOLED - development in Federal Republic of Germany of fast breeder, January to April 1972
 REACTORS, LIQUID METAL-COOLED - physics calculations for fast breeder
 REACTORS, LIQUID METAL-COOLED - fuel elements for fast breeder, radiation testing of plutonium oxide (PuO_2)--uranium oxide (UO_2)
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , radiation testing of liquid metal cooled fast breeder reactor fuel rods
- 1271 27:19075 FAST REACTOR CORE DEFORMATION DUE TO STAINLESS STEEL SWELLING AND THERMAL BOWING WITH IRRADIATION ENHANCED AND THERMAL CREEP. Ohmae, Kenichi; Ohtsuki, Atsushi; Kaneto, Kunikazu (Hitachi Ltd., Japan). Nucl. Eng. Des.; 23: No. 1, 86-106(1972).
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - core deformation in sodium cooled, effects of stainless steel swelling and thermal bowing on, (T)
- 1272 27:19079 FAST BREEDER AT WEISWEILER. Deut. Forschungsdienst, Sonderber. Kernenerg.; 15: No. 22, 107-10 (1970). (In German).
- SNR REACTOR - design characteristics of
- 1273 27:19085 (ANL/EBR--65) EBR-II RADIOACTIVE SODIUM CHEMISTRY LOOP (RSCL). Haroldsen, G. O.; Livengood, C. L. (Argonne National Lab., Ill. Argonne National Lab., Idaho Falls, Idaho). Aug 1972. Contract W-31-109-eng-38. 36p. Dep. NTIS.
- EXPERIMENTAL BREEDER REACTOR-II - in-pile loop for, design of radioactive sodium chemistry
- 1274 27:19086 (CONF-701074--6) COMPUTATIONAL METHODS OF EVALUATING THE EMERGENCY STATE OF A SODIUM LOOP DURING PIPING BREAKDOWN IN A "SODIUM-WATER" STEAM GENERATOR. Poplavskii, V.

M.; Bagdasarov, Yu. E.; Leonchuk, V. N. Translated from pp 474-503 of Proceedings of the Scientific-Technical Conference on Atomic Power, Fuel Cycles, and Radiation Study of Materials, Ul'yanovsk, USSR, 5--10 October 1970, Vol. I. 26p. Dep. NTIS.

BOILERS - pipe failures in sodium heated, effects on reactor cooling system of sodium-water reactions during, (E/T)
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - cooling system for sodium cooled, effects of sodium--water reaction during steam generator piping failure on, (E/T)

- 1275 27:19087 (CONF-721112--5) CONSTITUTIVE EQUATIONS FOR INELASTIC ANALYSES OF LIQUID-METAL FAST BREEDER REACTOR SYSTEM COMPONENTS. Liu, K. C.; Pugh, C. E.; Greenstreet, W. L. (Oak Ridge National Lab., Tenn.). [nd]. 37p. Dep. NTIS. From American Society of Mechanical Engineers Winter meeting; New York, NY (26 Nov 1972).

LIQUID METAL FAST BREEDER REACTOR - components for, inelastic analyses of Types 304 and 316 stainless steel, (T)
 STAINLESS STEEL - stress-strain analysis of Types 304 and 316, (T)

- 1276 27:19088 (GEAP--13898-1) LMFBR PUMP DEVELOPMENT PROGRAM. First Quarterly Report, June--August 1972. (General Electric Co., Sunnyvale, Calif. Breeder Reactor Dept.). Sep 1972. Contract AT(04-3)-893. 20p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - cooling system for, development of pumps for primary PUMPS (LIQUID METAL) - development for sodium cooled reactors, program for

- 1277 27:19092 COVER-GAS BUBBLES IN RECIRCULATING SODIUM PRIMARY COOLANT. Winterton, R. H. S. (Central Electricity Generating Board, Berkeley, Eng.). Nucl. Eng. Des.; 22: No. 2, 262-71(1972).

PROTOTYPE FAST REACTOR; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER coolant for, entrainment of cover-gas bubbles in recirculating sodium primary

- 1278 27:19096 MECHANICAL SODIUM PUMPS FOR LIQUID METAL-COOLED FAST BREEDER REACTORS. Shimoyashiki, Shigehiro (Hitachi Ltd., Ibaraki, Japan); Sagawa, Norihiko; Ito, Yoshio; Suzuki, Akira. Ponpu Kogaku; 7: No. 11, 743-7(Nov 1971). (In Japanese).

PUMPS (LIQUID METAL) - development of mechanical, for sodium cooled reactors
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - cooling systems for sodium-cooled, development of mechanical pumps for

- 1279 27:19099 (ANL--7873) RADIOACTIVITY OF EBR-II COMPONENTS. I. EXAMINATIONS IN FY 1971. Smith, C. R. F. (comp.) (Argonne National Lab., Ill.). Sep 1972. Contract W-31-109-eng-38. 80p. Dep. NTIS.

EXPERIMENTAL BREEDER REACTOR-II - components for, summary of fiscal 1971 radioactivity measurements on

- 1280 27:19101 (CONF-720578--1) Metallurgical aspects of the fast breeder reactor and high temperature gas cooled reactor. Board, J.A. (BRITISH NUCLEAR DESIGN AND CONSTRUCTION LTD., WHETSTONE (ENGLAND)). 1972. 75p.

REACTORS, FAST - components for gas cooled and liquid metal cooled, metallurgical aspects in development of
 REACTORS, GAS-COOLED - components for fast, metallurgical aspects in development of
 REACTORS, GAS-COOLED - components for high temperature, metallurgical aspects in development of
 REACTORS, LIQUID METAL-COOLED - components for fast, metallurgical aspects in development of
 STAINLESS STEEL - performance in fast reactor systems

- 1281 27:19102 (CONF-721109--15) FAST REACTOR FUEL PROCESSING. Ferguson, D. E.; Lotts, A. L. (Oak Ridge National Lab., Tenn.). 1972. Contract W-7405-eng-26. 20p. Dep. NTIS. From International conference on nuclear solutions to world energy problems; Washington, DC (12 Nov 1972).

LIQUID METAL FAST BREEDER REACTOR - fuel for, chemical reprocessing and recycle fabrication procedures for plutonium oxide (PuO_2)--uranium oxide (UO_2)
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , reprocessing of, procedures for chemical
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of, procedures for recycle
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , reprocessing of, procedures for chemical
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of, procedures for recycle

- 1282 27:19104 (GEAP--13823-3) LMFBR hot cell refueling component tests. Third quarterly report, July--September 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Oct 1972. AT(04-3)-189. 42p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - refueling system for, development of hot cell
- 1283 27:19107 (RDT-E--6-19-T(8-72)) CORE RADIAL REFLECTOR FOR SODIUM COOLED REACTORS. (Division of Reactor Development and Technology (AEC), Washington, D. C.). Aug 1972. 18p. RSO.
- REACTORS, LIQUID METAL-COOLED - reflector assemblies for, standard for fabrication and quality assurance requirements of
 STANDARDS - reflector assemblies for liquid sodium cooled reactors, fabrication and quality assurance requirements of
- 1284 27:19112 LAMINAR- AND SLUG-FLOW HEAT TRANSFER CHARACTERISTICS OF FUEL RODS ADJACENT TO FUEL SUBASSEMBLY WALLS. Hsu, C.-J (Brookhaven National Lab., Upton, N. Y.). Nucl. Sci. Eng.; 49: No. 3, 398-404(Nov 1972).
- LIQUID METAL FAST BREEDER REACTOR - fuel elements at cluster periphery in, laminar- and slug-flow heat transfer characteristics of, (T)
 REACTOR FUEL ELEMENTS - heat transfer characteristics at edge regions of sodium cooled, laminar- and slug-flow, (T)
- 1285 27:19122 (ANL--7951) VENUS-II: AN LMFBR DISASSEMBLY PROGRAM. Jackson, J. F.; Nicholson, R. B. (Argonne National Lab., Ill.). Sep 1972. Contract W-31-109-Eng-38. 154p. Dep. NTIS.
- COMPUTER PROGRAMS - VENUS-II, for model analysis of LMFBR core disassembly accidents, FORTRAN 4 for IBM 360/75
 LIQUID METAL FAST BREEDER REACTOR - core disassembly accidents in, VENUS-II code for model analysis of
- 1286 27:19126 (ORNL-TM--4030) ORNL NUCLEAR SAFETY RESEARCH AND DEVELOPMENT PROGRAM BIMONTHLY REPORT FOR SEPTEMBER--OCTOBER 1972. Non-LMFBR Programs. Cottrell, W. B. (Oak Ridge National Lab., Tenn.). Jan 1973. Contract W-7405-eng-26. 123p. Dep. NTIS.
- CHARCOAL - temperature of filters of, effects of fission product iodine decay heat on post-accident
 FISSION PRODUCTS - release from coated particle fuels
 FISSION PRODUCTS - distribution in cooling systems of HTGR type reactors, (E)
 GRAPHITE - corrosion of H-327, by high temperature steam, (E)
 INFORMATION CENTERS - operation of Nuclear Safety, during September and October 1972
 NOZZLES - stresses in reactor pressure vessel, effects of attachment configuration on, (E/T)
 PEACH BOTTOM POWER REACTOR, UNIT 1 - cooling system of, fission product surveillance in primary
 PIPES - tees for nuclear service, stress testing of
 PRESSURE VESSELS - fracture of heavy section steel, effects of fatigue crack propagation on, (E)
 PRESSURE VESSELS - nozzles for, effects of attachment configuration on stresses in, (E/T)
 REACTOR FUEL ELEMENTS - heat transfer in water cooled, effects of blowdown transients on, (E/T)
 REACTOR SAFETY - development activities during September and October 1972
 REACTORS, LIQUID METAL-COOLED - standards for, development of engineering
 REACTORS, PRESSURIZED-WATER - coolant loss accidents in, fuel assembly blowdown transient heat transfer during, (E/T)
 REACTORS, WATER-COOLED - standards for, development of engineering
 STANDARDS - development of reactor engineering, during September and October 1972

STEAM - corrosive effects on H-327 graphite, (E)

- 1287 27:19127 ANALYSIS OF THE COOLANT BEHAVIOR FOLLOWING FUEL FAILURE AND MOLTEN FUEL-SODIUM INTERACTION IN A FAST NUCLEAR REACTOR. Cronenberg, A. W.; Fauske, H. K.; Eggen, D. T. (Argonne National Lab., IL). Nucl. Sci. Eng.; 50: No. 1, 53-62(Jan 1973).
- LIQUID METAL FAST BREEDER REACTOR - fuel element failures in, analysis of molten fuel and liquid sodium interaction following
SODIUM - reactions with molten fuel of liquid, following fuel element failures in fast breeder reactor
- 1288 27:19128 SOME AUTOCATALYTIC EFFECTS DURING EXPLOSIVE POWER TRANSIENTS IN LIQUID METAL COOLED, FAST BREEDER, NUCLEAR POWER REACTORS (LMFBRs). Webb, Richard Eugene. Columbus, Ohio; Ohio State Univ. (1972). 267p. University Microfilms Order No. 72-21,029. Thesis.
- LIQUID METAL FAST BREEDER REACTOR - power transients in, analysis of autocatalytic effects during explosive superprompt critical
- 1289 27:19129 THEORETICAL MODEL FOR THE MOLTEN FUEL-SODIUM INTERACTION IN A NUCLEAR FAST REACTOR. Caldarola, L. (Gesellschaft fuer Kernforschung mbH., Karlsruhe, Ger.). Nucl. Eng. Des.; 22: No. 2, 175-211(1972).
- REACTOR FUEL ELEMENTS - failure of sodium cooled, molten fuel--coolant interaction following, (T)
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - fuel element failure in sodium cooled, molten fuel--coolant interaction following, (T)
SODIUM - reactions with molten reactor fuel following fuel element failure, model for, (T)
- 1290 27:19131 CONTINUOUS BOILING PHENOMENA OF SODIUM UNDER FORCED CONVECTION BY DIRECT HEATING. Takahashi, Katsuro; Fujii-e, Yoichi; Suita, Tokuo (Osaka Univ.). J. Nucl. Sci. Technol. (Tokyo); 9: No. 11, 670-9(Nov 1972).
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant boiling in sodium cooled, flow patterns under forced convection, (E)
SODIUM - boiling under forced convection by direct heating, characteristics of continuous, (E)
- 1291 27:19133 (BMBW-FBK--72-17) CALCULATION OF CO₂-GAS TURBINE CYCLES (Na/CO₂-PROJECT). Mukherjee, S. K. (Technische Universitaet, Hanover (West Germany). Institut fuer Stroemungsmaschinen). Sep 1972. 108p. (In German). Dep. NTIS (U. S. Sales Only).
- REACTORS, BREEDER - turbine cycles for sodium-cooled fast, thermal efficiency of carbon dioxide
REACTORS, FAST - turbine cycles for sodium-cooled breeder, thermal efficiency of carbon dioxide
REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - turbine cycles for sodium-cooled fast breeder, thermal efficiency of carbon dioxide
TURBINES - efficiency of carbon dioxide, for sodium-cooled fast breeder reactors
- 1292 27:19151 (DOCKET-50016--179) Enrico Fermi Atomic Power Plant, report for October 1972. (POWER REACTOR DEVELOPMENT CO., DETROIT, MICH.). 1972. 11p. (PRDC-EF--110). Dep. NTIS.
- FERMI FAST BREEDER REACTOR - tests during October 1972
FERMI FAST BREEDER REACTOR - maintenance during October 1972
FERMI FAST BREEDER REACTOR - radiation monitoring during October 1972
FERMI FAST BREEDER REACTOR - operations during October 1972
- 1293 27:19266 (AI-AEC-Memo--12661) FAST FLUX TEST FACILITY UNSHIELDED SODIUM COOLED FUEL HANDLING MACHINE PROGRESS REPORT. Jones, C. E.; Faitel, J. R. (Atoms International, Canoga Park, Calif.). 22 Jul 1968. Contract AT(04-3)-701. 197p. Dep. NTIS.
- FAST TEST REACTOR - fuel handling machine for, secondary cooling system for unshielded sodium cooled

REMOTE-HANDLING EQUIPMENT - cooling system for unshielded sodium cooled, design of secondary

- 1294 27:19278 (GEAP--13713) Instrumented fuel assembly fabrication report. Craig, E.; Gregg, J.P.; Hall, W.L.; Kubic, B.W.; Lannin, T.E.; Mine, W.T.; Thompson, M.L. (comps.) (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Jun 1972. Contract AT(04-3)-540. 182p. Dep. NTIS. For Southwest Atomic Energy Associates.
- PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , fabrication of instrumented fuel rod assembly of REACTOR FUEL ELEMENTS - fabrication of instrumented assembly of stainless steel clad plutonium oxide (PuO_2)--uranium oxide (UO_2)
SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - fuel assembly for, fabrication of instrumented URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication of instrumented fuel rod assembly of
- 1295 27:19280 (HEDL-TME--72-107) FFTF MATERIALS ARCHIVE PROGRAM. Moen, R. A. (ed.) (Hanford Engineering Development Lab., Richland, Wash.). Dec 1972. Contract AT(45-1)-2170. 82p. Dep. NTIS.
- FAST FLUX TEST FACILITY - materials archive program for
- 1296 27:19281 (HEDL-TME--72-147) INVESTIGATION OF MODELLING METHODS FOR FTR BURNUP CALCULATIONS. Nelson, J. V.; Bennett, R. A.; Fleishman, R. M. (Hanford Engineering Development Lab., Richland, Wash.). Dec 1972. Contract AT(45-1)-2170. 54p. Dep. NTIS.
- FAST TEST REACTOR - fuel burnup in, effects of modelling parameters on calculation of
- 1297 27:19282 (HEDL-TME--72-148) DYSI: DYNAMIC SLUG IMPACT SIMULATION FOR THE FFTF. Madsen, R. N.; Simpson, D. E. (Hanford Engineering Development Lab., Richland, Wash.). Dec 1972. Contract AT(45-1)-2170. 68p. Dep. NTIS.
- FAST TEST REACTOR - core vessel for, dynamic sodium slug impact simulation for
- 1298 27:19290 CHOICE AND SAFETY ANALYSIS CONCERNING THE INSTALLATION OF A 140Mw FAST NEUTRON REACTOR. Amadesi, P.; Cazzoli, S.; Cucchi, G. (Comitato Nazionale per l'Energie Nucleare, Bologna). pp 831-52 of New Trends in Radiation Protection. Montrouge, France; Societe Francaise de Radioprotection (1972). (In French). From 6. international congress on new trends in radiation protection; Bordeaux, France (27 Mar 1972). See CONF-720328.
- PEC FAST TEST REACTOR - site selection for, radiological safety studies for
- 1299 27:19297 ANALYSIS OF SEFOR TRANSIENTS. Bogensberger, H. G.; Oosterkamp, W. J. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt., Atomtech.; 17: No. 9-10, 505-6(1972). (In German).
- SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - power transients in, characteristics of
- 1300 27:19304 Guidelines established for the structural design of the experimental fast reactor JOYO. Ichino, I.; Abe, Y. Nippon Genshiryoku Gakkaishi; 14: No. 12, 678-693(Dec 1972). (In Japanese).
- JAPANESE EXPERIMENTAL FAST REACTOR - design of, guidelines for structural
- 1301 27:20204 (HEDL-SA--325) Fabrication of 90 percent dense fuel for irradiation testing. Warden, W.E.; Chidester, K.M. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 1972. Contract AT(45-1)-2170. 20p. (CONF-720525--7). Dep. NTIS.
- FAST FLUX TEST FACILITY - fuel for, fabrication process development for mixed oxide PLUTONIUM OXIDES PuO_2 ; URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , fabrication processes for dense fuels of, for irradiation testing

- 1302 27:20306 Electron beam welding of thick suction plates. Dumonte, P. (SCIAKY, Vitry, France); Jullien, L.; Savornin, R. pp 733-752 of Electron Beam Welding and Melting. Paris; Interbus, 1971. (In French). From 1. international conference on electron beam welding and melting, Paris, France, 16 Jun 1970. See CONF-700676--. In Electron Beam Welding and Melting.

PHENIX FAST REACTOR - reactor vessel for, fabrication of stainless steel, electron-beam welding method for
 STAINLESS STEEL - fabrication of Phenix reactor vessel using Type 316, electron-beam welding method for
 WELDING - method of electron-beam, for fabrication of stainless steel Phenix reactor vessel

- 1303 27:20307 Developments in electron beam welding techniques. Results of mechanical tests on thick joints made under industrial conditions. Boullisset, R.; Dollet, J.; Bastien, P. (Societe des Forges et Ateliers du Creusot, Paris). pp 753-778 of Electron Beam Welding and Melting. Paris; Interbus, 1971. (In French). From 1. international conference on electron beam welding and melting, Paris, France, 16 Jun 1970. See CONF-700676--. In Electron Beam Welding and Melting.

PHENIX FAST REACTOR - reactor vessel of, electron-beam welding processes for
 STAINLESS STEEL - welds of thick section, using no filler metal, mechanical properties of electron-beam fused
 WELDING - method for electron-beam, using no filler metal in stainless steel fabrication
 WELDS - mechanical properties of thick-section stainless steel, using no filler metal

- 1304 27:21573 (EURFNR--1038) Fast Breeder Project. Second quarterly report, 1972. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY)). Sep 1972. 251p. (KFK--1272/2). Dep. NTIS (U.S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.

REACTOR FUEL ELEMENTS - development of pin-type fast breeder
 REACTOR FUEL ELEMENTS - radiation testing of pin-type fast breeder
 REACTOR FUEL ELEMENTS - cladding for fast breeder, development and testing of stainless steel
 REACTORS, BREEDER - fuel elements for, development and radiation testing of pin-type
 REACTORS, BREEDER - fuel element cladding for, development and testing of stainless steel
 REACTORS, BREEDER - cooling systems for, materials corrosion in, (E)
 REACTORS, BREEDER - physics parameters for, (E/T)
 REACTORS, FAST - fuel elements for, development and radiation testing of pin-type
 REACTORS, FAST - fuel element cladding for, development and testing of stainless steel
 REACTORS, FAST - cooling systems for, materials corrosion in, (E)
 REACTORS, FAST - physics parameters for, (E/T)
 REACTORS, FAST - power excursions in, model for, (T)
 REACTORS, FAST - components for, safety aspects in performance of, (E)
 REACTORS, FAST - cooling system for sodium cooled, analysis of perturbations in
 REACTORS, FAST - core instrumentation for sodium cooled
 REACTORS, FAST - components for sodium cooled, effects of sodium on, (T)
 REACTORS, FAST - development of gas cooled, research on
 REACTORS, FAST - development of sodium cooled, design studies on
 REACTORS, GAS-COOLED - development of fast breeder, research on
 REACTORS, LIQUID METAL-COOLED - cooling system for sodium cooled, analysis of perturbations in
 REACTORS, LIQUID METAL-COOLED - core instrumentation for sodium cooled
 REACTORS, LIQUID METAL-COOLED - components for sodium cooled, effects of sodium on, (T)
 REACTORS, LIQUID METAL-COOLED - development of sodium cooled, design studies on
 SNR REACTOR - accidents in, aerosol concentration in outer containment structure following, (T)

- 1305 27:21574 (EURFNR--1056) Fast Reactor Programme. Third quarter 1972 progress report. Hoekstra, E.K. (comp.) (REACTOR CENTRUM NEDERLAND, PETTEN.). Nov 1972. 82p. (RCN--180). Dep. NTIS (U.S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.

AEROSOLS - formation in sodium cooled fast reactor accidents, simulation of
 CRITICAL ASSEMBLIES - physics experiments in STEK
 FISSION PRODUCTS - effects on physics parameters of fast sodium cooled reactor cores
 REACTOR FUEL ELEMENTS - performance testing of sodium cooled, during overload conditions
 REACTOR FUEL ELEMENTS - heat transfer from rod-type, in sodium and air, (E)
 REACTOR FUELS - radiation testing of uranium carbonitride
 REACTORS, FAST - development of sodium cooled, during July through September 1972
 REACTORS, FAST - safety of sodium cooled, research program on

REACTORS, FAST - physics parameters of sodium cooled, effects of fission products on
 REACTORS, FAST - fuel elements for sodium cooled, development and testing of
 REACTORS, FAST - core heat transfer in sodium cooled, rod-bundle mockup measurements of
 REACTORS, LIQUID METAL-COOLED - development of sodium cooled, during July through
 September 1972
 REACTORS, LIQUID METAL-COOLED - safety of sodium cooled, research program on
 REACTORS, LIQUID METAL-COOLED - physics parameters of sodium cooled, effects of fission
 products on
 REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, development and testing
 of
 REACTORS, LIQUID METAL-COOLED - core heat transfer in sodium cooled, rod-bundle mockup
 measurements of
 URANIUM CARBONITRIDES - use as reactor fuels, irradiation and thermal testing for

- 1306   27:21582 (JAPFNR--82) Study of heterogeneity effects on the sodium void coefficients.
 III. (MITSUBISHI ATOMIC POWER INDUSTRIES, INC., OMIYA (JAPAN).). Jun 1972. 17p.
 (PNC-J--72-17). Dep. NTIS (U.S. Sales Only). For Power Reactor and Nuclear Fuel
 Development Corp., Tokai, Japan.
 REACTORS, LIQUID METAL-COOLED - reactivity coefficients in, heterogeneity effects on
 neutron leakage component of sodium void, (T)
- 1307   27:21583 IMPROVED REACTIVITY TABLE MODEL FOR LIQUID METAL FAST BREEDER REACTOR DYNAMICS.
 Stacey, Weston M. Jr. (Argonne National Lab., Ill.). Nucl. Sci. Eng.; 49: No. 2,
 213-27(Oct 1972).
 LIQUID METAL FAST BREEDER REACTOR - kinetics of, improved reactivity table model for, (T)
- 1308   27:21594 (AD--747500) APPLICATION OF DIGITAL TECHNIQUES TO A NUCLEAR REACTOR SAFETY
 MONITOR FOR THE LIQUID METAL FAST BREEDER REACTOR. Elrod, S. A. (Naval Postgraduate
 School, Monterey, Calif.). Mar 1972. 70p. NTIS. Thesis.
 LIQUID METAL FAST BREEDER REACTOR - safety monitor system for, digital
 REACTOR CONTROL SYSTEMS - design parameters of liquid metal fast breeder, with digital
 safety monitor modules
- 1309   27:21600 DEVICE TO PREVENT SODIUM FREEZING AROUND SHAFT PENETRATION. Germer, J. H. (to
 United States Atomic Energy Commission). U.S. Patent 3,700,551. 24 Oct 1972. Filed 18
 Feb 1971.
 LIQUID METAL FAST BREEDER REACTOR - control element drive shaft for, sodium freezing
 prevention system for
- 1310   27:21606 CONTAINMENT OF FAST BREEDER REACTORS: PRESENT STATUS AND REMAINING PROBLEMS.
 Fistedis, S. H. (Argonne National Lab., Ill.). Nucl. Eng. Des.; 19: No. 2, 315-31(1972).
 From 1. international conference on structural mechanics in reactor technology; Berlin,
 Germany (20 Sep 1971). See CONF-710903--(Vol.19,No.2).
 REACTOR CONTAINMENT SYSTEMS - dynamic response of sodium cooled fast, effects of
 excursions on, (T)
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - containment systems of
 sodium-cooled, effects of excursions on dynamic response of, (T)
- 1311   27:21611 SODIUM PURIFICATION WITH THE HOT TRAP. Borgstedt, H. U.; Frees, G.; Drechsler,
 G. (Kernforschungszentrum, Karlsruhe, Ger.). Atomwirt., Atomtech.; 17: No. 9-10,
 506-7(1972). (In German).
 REACTORS, LIQUID METAL-COOLED - coolant for, hot trap purification of sodium
 SODIUM - purification of, hot trap method for
- 1312   27:21613 Release of radioactive noble gases from coolant into gas blankets of BOR-60
 reactor primary circuit. Gryazev, V.M.; Konyashov, V.V.; Polyakov, V.I.; Chechetkin,
 Yu.V. At. Energ. (USSR); 33: No. 6, 965-968(Dec 1972). (In Russian).

BOR-60 REACTOR - cooling system of, release of radioactive noble gases from coolant to cover gas in, (E)

- 1313 27:21614 Incipient boiling pressure pulse of sodium under forced convection by direct heating. Takahashi, K.; Fujii-e, Y.; Suita, T. (Osaka Univ.). J. Nucl. Sci. Technol. (Tokyo); 9: No. 12, 728-736(Dec 1972).

REACTORS, BREEDER - coolant boiling in sodium cooled fast, pressure pulses during incipient, (E)
 REACTORS, FAST - coolant boiling in sodium cooled breeder type, pressure pulses during incipient, (E)
 REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - coolant boiling in sodium cooled fast breeder, pressure pulses during incipient, (E)
 SODIUM - boiling under forced convection by direct heating, pressure pulses from incipient, (E)

- 1314 27:21615 Coolant radioactivity of the BOR-60 reactor. Kobzar, I.G.; Konyashov, V.V.; Lisitsyn, E.S.; (and others). At. Energ. (USSR); 33: No. 6, 991-992(Dec 1972). (In Russian).

BOR-60 REACTOR - cooling system of, radioisotopes content of sodium in, (E)

- 1315 27:21617 (BLG--467, pp 1.1-58) DEVELOPMENT OF FAST REACTORS.

BELGIAN REACTOR-2 - irradiation facilities for, development of fast
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , development of fast reactor fuels of
 PLUTONIUM OXIDES PuO_2 - PuO_2 -- UO_2 , reprocessing of fast reactor fuels of
 REACTOR FUEL ELEMENTS - cladding for fast, development of
 REACTOR FUELS - development of fast, 1971 support activities for
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; SNR REACTOR - development of, 1971 support activities for
 SODIUM - properties for use as fast reactor coolant
 URANIUM CARBIDES - development of fast reactor fuels of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , development of fast reactor fuels of
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , reprocessing of fast reactor fuels of

- 1316 27:21618 (CONF-721112--7) Liquid entrainment rate and droplet size relative to fuel failure propagation due to fission-gas jet-impingement in LMFBR subassemblies. Chawla, T.C. (ARGONNE NATIONAL LAB., ILL.). 1972. 16p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - fuel pin failure propagation in, effects of fission-gas jet impingement on
 REACTOR FUEL ELEMENTS - failure propagation in subassemblies of sodium cooled, effects of fission-gas jet impingement on

- 1317 27:21626 PMC DIGS IN TO BUILD THE BREEDER. Schuster, Ray (ed.). Power Eng.; 77: No. 1, 42-47(Jan 1973).

LIQUID METAL FAST BREEDER REACTOR - construction of U.S. demonstration, administrative activities and financial data on
 LIQUID METAL FAST BREEDER REACTOR - quality assurance requirements for U.S. demonstration

- 1318 27:21629 TECHNOLOGY ASSESSMENTS FOR DEVELOPMENT OF DEMONSTRATION FAST BREEDER REACTOR. Nakagawa, H.; Tsukizi, M. (Tokyo Electric Power Co. Inc.). Genshiryoku Kogyo; 18: No. 1, 36-41(Jan 1972). (In Japanese).

REACTORS, FAST - fuel cycle costs for sodium-cooled, estimation of
 REACTORS, FAST - construction costs of sodium-cooled, estimation of
 REACTORS, LIQUID METAL-COOLED - fuel cycle costs for sodium-cooled, estimation of
 REACTORS, LIQUID METAL-COOLED - construction costs of sodium-cooled, estimation of
 REACTORS, POWER - fuel cycle costs for sodium-cooled, estimation of
 REACTORS, POWER - construction costs of sodium-cooled, estimation of

- 1319 27:21655 (DOCKET-50016--181) Enrico Fermi Atomic Power Plant, Unit 1. Technical

specifications, additional information on change requests. (POWER REACTOR DEVELOPMENT CO., DETROIT, MICH.). 20 Feb 1973. 3p. Dep. NTIS.

FERMI FAST BREEDER REACTOR - control rods for, additional data on bellows for
FERMI FAST BREEDER REACTOR - containment system for, additional data on filter testing for
FERMI FAST BREEDER REACTOR - coolant for, radiation monitoring of liquid sodium
FERMI FAST BREEDER REACTOR - personnel for, staffing requirements from
FERMI FAST BREEDER REACTOR - emergency power for, requirements for

- 1320 27:21721 DEVELOPMENT OF THE COMMERCIAL BREEDERS. Barnard, J.; Fidrych, L. F.; Gibson, A. S.; (and others) (General Electric Co., Sunnyvale, CA). Nucl. News; 15: No. 12, 30-6 (Dec 1972).

REACTORS, BREEDER - development in U. S. of commercial sodium cooled fast
REACTORS, FAST - development in U. S. of commercial sodium cooled breeder type
REACTORS, LIQUID METAL-COOLED - development in U. S. of commercial fast breeder
REACTORS, POWER - development in U. S. of commercial sodium cooled fast breeder

- 1321 27:21837 (TIM--774) LCRE reactor control system-Compensation Amplifier: Job No. FED-128-223. Banic, C.V. (PRATT AND WHITNEY AIRCRAFT, MIDDLETOWN, CONN. CONNECTICUT ADVANCED NUCLEAR ENGINEERING LAB.). 1 Jul 1964. Contract AT(30-1)-2789. 8p. Dep. NTIS. Declassified 21 Oct 1971.

LITHIUM-COOLED REACTOR EXPERIMENT - control system for, design and performance of compensation amplifier for

- 1322 27:21839 (TIM--790) LCRE reactor control system summing point and error amplifier. Naples, P.V. (PRATT AND WHITNEY AIRCRAFT, MIDDLETOWN, CONN. CONNECTICUT ADVANCED NUCLEAR ENGINEERING LAB.). 30 Mar 1964. 10p. Dep. NTIS. Declassified 20 Oct 1971.

LITHIUM-COOLED REACTOR EXPERIMENT - control system for, summing point and error amplifier for

- 1323 27:21840 (TM--67-3-7) 710 Reactor auxiliary liquid-metal coolant system activation and reactivity worth calculations. Zwick, J.W. (GENERAL ELECTRIC CO., CINCINNATI, OHIO. NUCLEAR MATERIALS AND PROPULSION OPERATION.). 15 Feb 1967. Contract AT(40-1)-2847. 19p. Dep. NTIS. Declassified 3 Nov 1971.

PRESSURE VESSELS - cooling system for space power reactor, radioactivation and reactivity worth effects of liquid sodium--potassium, (T)
REACTORS, LIQUID METAL-COOLED; REACTORS, POWER - pressure vessel cooling system for space, radioactivation and reactivity worth effects of liquid sodium--potassium, (T)

- 1324 27:21863 (COO--3019-3) SEMIANNUAL PROGRESS REPORT, MARCH 1, 1972--AUGUST 31, 1972. (Harvard Univ., Boston, Mass. Harvard Air Cleaning Lab.). Oct 1972. Contract AT(11-1)-3019. 33p. Dep. NTIS.

CHARCOAL - sorptive properties for krypton and xenon of activated, effects of pressure and temperature on
FAST TEST REACTOR - containment cooling system for, analysis of sodium aerosol deposition in heat exchanger and blower of
KRYPTON - sorption by activated charcoal of, effects of pressure and temperature on
REACTORS, LIQUID METAL-COOLED - cooling system for, performance of activated charcoal for adsorption of krypton and xenon from argon and helium cover gas for
XENON - sorption by activated charcoal of, effects of pressure and temperature on

- 1325 27:21864 (DOCKET-50231--130) Southwest Experimental Fast Oxide Reactor. Technical specifications, intrusion alarm sensors. (DIRECTORATE OF LICENSING (AEC), WASHINGTON, D.C.). 7 Feb 1973. 2p. Dep. NTIS.

SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - security system for, revised specifications for intrusion alarm sensors for

- 1326 27:21866 (GEAP--13850) Specification of ZPPR Assembly 3, Phase 1 experimental program.

Bailey, H.S.; Stewart, S.L. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Oct 1972. Contract AT(04-3)-189. 44p. Dep. NTIS.

CRITICAL ASSEMBLIES - core configurations for ZPPR Assembly 3, specifications for

- 1327 27:21867 (HEDL-TME--72-116(Vol.1)) FACILITY DESIGN DESCRIPTION OF THE PROTOTYPE APPLICATIONS LOOP. Owens, T. J.; Lester, D. H.; Bennett, D. W. (Hanford Engineering Development Lab., Richland, Wash.). 1972. Contract AT(45-1)-2170. 287p. Dep. NTIS.

FAST FLUX TEST FACILITY - cooling system for, Prototype Applications Loop for development of in-line chemistry monitoring instruments for

LOOPS - design parameters of liquid sodium Prototype Applications Loop

LOOPS - operations aspects of liquid sodium Prototype Applications Loop

LOOPS - quality assurance requirements for liquid sodium Prototype Applications Loop

- 1328 27:21889 MEASUREMENTS OF THE EFFECTIVE DELAYED-NEUTRON FRACTION IN TWO FAST CRITICAL EXPERIMENTS. Carpenter, S. G.; Gasidlo, J. M.; Stevenson, J. M. (Argonne National Lab., Idaho Falls, Idaho). Nucl. Sci. Eng.; 49: No. 2, 236-9 (Oct 1972).

CRITICAL ASSEMBLIES - reactivity worths of uranium-235 and plutonium-239 in ZPR-3, (E)
NEUTRONS, DELAYED - effective fractions for uranium-235 and plutonium-239 in fast critical assemblies, (E)

PLUTONIUM ISOTOPES Pu-239; URANIUM ISOTOPES U-235 - neutron fraction in fast critical assemblies, effective delayed, (E)

- 1329 27:21895 (KFK--1701) Systematic errors and correction possibilities in inverse kinetic control rod calibrations. Walze, H. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER ANGEWANDTE SYSTEMTECHNIK UND REAKTORPHYSIK.). Nov 1972. 76p. (In German). Dep. NTIS (U.S. Sales Only).

CRITICAL ASSEMBLIES - control rod calibrations for SNEAK, correction of systematic errors in continuous run

REACTOR CONTROL ELEMENTS - reactivity worth calibration of shim type, method for correcting systematic errors in continuous run

- 1330 27:21971 (KFK--1605) MISTRAL-II: thermohydraulic mixed flow algorithm for rod bundles. Baumann, W. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER REAKTORBAUELEMENTE.). Jun 1972. 75p. (In German). Dep. NTIS (U.S. Sales Only).

COMPUTER PROGRAMS - MISTRAL II, for thermohydraulic calculations for sodium cooled fuel rod bundles

REACTOR FUEL ELEMENTS - thermohydraulic calculations for bundles of sodium cooled REACTORS, LIQUID METAL-COOLED - fuel rod bundles for sodium cooled, thermohydraulic calculations for

- 1331 27:22376 Numerical analysis method for linear induction machines. Elliott, D.G. (Jet Propulsion Lab., Pasadena, CA). pp IV.3.1-IV.3.9 of Engineering aspects of magnetohydrodynamics. Petrick, M. (ed.). Argonne, Illinois; Argonne National Lab., 1972. From 12. symposium engineering aspects of magnetohydrodynamics, Argonne, Illinois, USA, 27 Mar 1972, 29 Mar 1972. See CONF-720342--.

MAGNETOHYDRODYNAMIC GENERATORS - performance of induction-type, numerical method for analyzing

MOTORS - performance of linear induction, numerical method for analyzing

PUMPS (LIQUID METAL) - performance of MHD induction-type, numerical method for analyzing

- 1332 27:22880 (WARD--3045-T-1-9) Carbon equilibrium relationships for austenitic stainless steels in a sodium environment. Shiels, S.A.; Bagnall, C.; Schrock, S.L. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). Feb 1973. Contract AT(11-1)-3045. 29p. AT \$4.00.

CARBON - content in surfaces of Types 304 and 316 stainless steel exposed to sodium at 800 to 1400°C, measurement of

CARBON - effects on properties of stainless steel

LIQUID METAL FAST BREEDER REACTOR - cooling system of, development of materials for

STAINLESS STEEL - carbon content in surface layers of Types 304 and 316, exposed to sodium

at 800 to 1400°C, measurement of
STAINLESS STEEL - mechanical properties of Types 304 and 316, effects of thermally induced
carbon content changes on

- 1333 27:23642 (EURFNR--1052) Integrated design and optimization of sodium/sodium heat exchangers with computer assistance. Schnauder, H. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER REAKTORENTWICKLUNG.). Oct 1972. 29p. (CONF-720849--2; KFK--1628). Dep. NTIS (U.S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.
- HEAT EXCHANGERS - design of sodium/sodium intermediate, using SINE computer code
REACTORS, LIQUID METAL-COOLED - heat exchangers for sodium cooled, design and optimization of intermediate
- 1334 27:23854 (CONF-720466--(Pt.2)) International Working Group on Fast Reactors fifth annual meeting, Vienna, Austria, 19--21 April 1972. Summary report. (INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA (AUSTRIA).). [nd]. 226p. (In several languages).
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium-cooled, conference on
- 1335 27:23855 (CONF-720466--(Pt.2), pp 7-29) Present state of development of the fast breeder project in the Federal Republic of Germany and in the Benelux countries and progress achieved during 1971 and early 1972. Engelmann, P. (Gesellschaft fuer Kernforschung m.b.H., Karlsruhe, Ger.); Daeunert, U. [nd]. From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.
- FEDERAL REPUBLIC OF GERMANY - reactor development in, survey on fast breeder
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, in West Germany and BENELUX countries
- 1336 27:23856 (CONF-720466--(Pt.2), pp 35-57) Review of fast reactor progress in the UK. Smith, R.D. [nd]. From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, in United Kingdom
UNITED KINGDOM - reactor development in, survey on fast
- 1337 27:23857 (CONF-720466--(Pt.2), pp 59-69) Status of fast reactor research and development in the USSR. Krasnoyarov, N. Apr 1972. (In Russian). From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, in USSR
SOVIET UNION - reactor development in, survey on fast
- 1338 27:23858 (CONF-720466--(Pt.2), pp 71-132) Status of the U.S.A. liquid metal fast breeder reactor program. Wensch, G.W. Apr 1972. From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.
- LIQUID METAL FAST BREEDER REACTOR - development program for U.S.
- 1339 27:23859 (CONF-720466--(Pt.2), pp 133-156) Development of fast reactors in France from April 1971--April 1972. Vautre, L. [nd]. (In French). From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.
- FRANCE - reactor development in, survey on sodium cooled fast
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, in France
- 1340 27:23860 (CONF-720466--(Pt.2), pp 157-173) Review of fast reactor progress in Japan.

Uchida, I.; Tomabechi, K. Apr 1972. From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.

JAPAN - reactor development in, survey on fast sodium cooled
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, in Japan

- 1341 27:23861 (CONF-720466--(Pt.2), pp 175-219) Review of fast reactor progress in Italy. Pierantoni, F. Apr 1972. From 5. annual meeting of the international working group on fast reactors, Vienna, Austria, 19 Apr 1972, 21 Apr 1972.

ITALY - reactor development in, survey on fast
PEC FAST TEST REACTOR - development of, review on
REACTORS, FAST - development in Italy

- 1342 27:23866 (TRG-Report--2362) Structural design criteria in the context of strength, stiffness, and fatigue. Lawton, W.T. (UNITED KINGDOM ATOMIC ENERGY AUTHORITY, RISLEY (ENGLAND). REACTOR GROUP.). 1972. 25p. (CONF-721006--4). Dep. NTIS (U.S. Sales Only).

REACTORS, FAST - core structures for sodium cooled, design criteria for
REACTORS, FAST - cooling systems for sodium cooled, structural design criteria for
REACTORS, FAST - heat exchangers for sodium cooled, structural design criteria for
REACTORS, LIQUID METAL-COOLED - core structures for sodium cooled, design criteria for
REACTORS, LIQUID METAL-COOLED - cooling systems for sodium cooled, structural design
criteria for
REACTORS, LIQUID METAL-COOLED - heat exchangers for sodium cooled, structural design
criteria for

- 1343 27:23869 (CONF-720579--), pp 125-135) Outline of sodium component test facility. Yuasa, Y. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.

JAPANESE EXPERIMENTAL FAST REACTOR - components for, large sodium component test facility
for testing

- 1344 27:23878 (ANL--7805) Failure mechanisms for internally pressurized thin-wall tubes and their relationship to fuel-element failure criteria. Yaggee, F.L.; Li, C.Y. (ARGONNE NATIONAL LAB., ILL.). Dec 1972. Contract W-31-109-Eng-38. 43p. Dep. NTIS \$4.00.

LIQUID METAL FAST BREEDER REACTOR - fuel element cladding for, failure mechanisms of
austenitic stainless steel, (E)
REACTOR FUEL ELEMENTS - cladding for, effects of stress, temperature and strain rate on
failure of stainless steel, (E)
TUBES - failure mechanisms for internally pressurized thin-wall austenitic
stainless-steel, relationship to fuel element failure, (E)

- 1345 27:23879 (ANL--7963) Inherently safe fuel development: preliminary analyses and recommendations. Roberts, J.T.A.; Eggen, D.T.; Livengood, C.D.; Trantina, G.G.; Stahl, D.; Lambropoulos, P.P.; Neimark, L.A.; Shum, R.H.; Stevenson, M.G.; Huebotter, P.R. (ARGONNE NATIONAL LAB., ILL.). Nov 1972. Contract W-31-109-eng-38. 61p. Dep. NTIS.

FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - fuel elements for, preliminary
design analysis of inherently safe
REACTOR FUEL ELEMENTS - design of inherently safe sodium cooled, with reactor shutdown
from fuel expansion

- 1346 27:23883 (KFK--1729) BREDA: a mathematical model for the description of fuel pin deformation (LMFBR) under transient conditions. Kuczera, B. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER REAKTORENTWICKLUNG.). Dec 1972. 48p. (In German). Dep. NTIS (U.S. Sales Only) \$4.50.

COMPUTER PROGRAMS - BREDA, for evaluating LMFBR fuel pin deformation in transient
conditions
LIQUID METAL FAST BREEDER REACTOR - fuel pin deformation in, BREDA code for analysis of
transient

REACTOR FUEL ELEMENTS - deformation of sodium cooled fast, BREDA code for analysis of transient

- 1347 27:23893 (CONF-720579-- , pp 19-38) Review of CNEN activities in the field of sodium fires. Pec, Progetto; Sin, Progetto 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant in sodium cooled, C.N.E.N. research on combustion of
SODIUM - combustion of, C.N.E.N. research on
- 1348 27:23894 (CONF-720579-- , pp 39-61) CEA position paper sodium combustion and its extinguishment techniques and technology. Sauvage, M.; Fruchard, Y. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.
- CADARACHE REACTORS (RAPSODIE); PHENIX FAST REACTOR - sodium fire protection in, research on
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant in sodium cooled, C.E.A. research on combustion of
SODIUM - combustion of, C.E.A. research on
- 1349 27:23895 (CONF-720579-- , pp 111-120) UKAEA experience in the detection of liquid metal leaks. Kirk, J. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.
- DOWNREAY FAST REACTOR - cooling system of, methods for detecting leaks from, (E)
LEAK DETECTORS - performance of liquid metal, UKAEA experience with
LEAKS - detection of liquid metal, UKAEA experience in
REACTORS, LIQUID METAL-COOLED - coolant leaks from, UKAEA experience in detection of
SODIUM - leakage from reactor cooling systems, UKAEA experience in detection of
- 1350 27:23896 (CONF-720579-- , pp 121-123) Detection of sodium fires and reliability of present methods. Bulmer, G.H. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.
- FIRES - detection of sodium, sensitivity of methods for, (E)
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant combustion in sodium cooled, sensitivity of methods for detecting, (E)
SODIUM - combustion of, sensitivity of methods for detection of, (E)
- 1351 27:23897 (CONF-720579-- , pp 137-154) Secondary sodium circuit integrity and fire fighting procedures for the UKAEA prototype fast reactor. Broadley, D. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.
- CONCRETES - damage from sodium fires, (E)
FIRES - effects on concrete of sodium, (E)
FIRES - control of sodium, method using vermiculite for, (E)
PROTOTYPE FAST REACTOR - coolant combustion in secondary circuit of, control and effects of, (E)
SODIUM - combustion of, effects on concrete, (E)
SODIUM - combustion of, method using vermiculite for control of
VERMICULITES - efficiency for extinguishing sodium fires, (E)
- 1352 27:23898 (CONF-720579-- , pp 169) Sodium combustion products, controls and effects

emergency ventilation control. Bulmer, G.H. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.

FOAMS - recirculation through spray system of sodium fire control, feasibility study of REACTORS, LIQUID METAL-COOLED - coolant combustion in sodium cooled, recirculation of foaming agents for control of
SODIUM - combustion of coolant system, recirculation in spray system of foaming agent for controlling

- 1353 27:23899 (CONF-720579-- , pp 171-174) Extinguishment of sodium fires. A possible technique for a large power LMFBR. Bulmer, G.H. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.

FIRES - extinguishing of sodium coolant accident, method for
REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED; REACTORS, POWER
coolant combustion in sodium cooled, method for controlling
SODIUM - fires from fast breeder reactor coolant accidents, method for extinguishing

- 1354 27:23903 (RT/ING--(72)11) Considerations on sodium fuel interactions related to fast reactor safety. Martini, M.; Sardone, D. (COMITATO NAZIONALE PER L'ENERGIA NUCLEARE, ROME (ITALY)). 5 Jul 1972. 18p. (CONF-720665--1). Dep. NTIS (U.S. Sales Only).

REACTOR FUEL ELEMENTS - failure of sodium cooled, sodium--fuel reactions following
REACTORS, LIQUID METAL-COOLED - fuel element failures in sodium-cooled, analysis of
sodium--fuel reactions following

- 1355 27:23904 (BMW-FBK--72-28) Development of an integrated heat exchanger/steam generator IDA for sodium-cooled fast breeder reactors. Final report. Albus, P.; Dumm, K.; Foerster, K.; Gerstler, R.; Hahn, G.; te Heesen, E.; Keusenhoff, J.; Meineke, W.; Schellong, B.; Zipper, E. (BUNDESMINISTERIUM FUER BILDUNG UND WISSENSCHAFT, BONN (WEST GERMANY)). Dec 1972. 65p. (In German). Dep. NTIS (U.S. Sales Only).

BOILERS - development of integrated heat exchanger-- , for sodium cooled fast breeder reactors
HEAT EXCHANGERS - development of integrated steam generator-- , for sodium cooled fast breeder reactors
REACTORS, FAST - steam generator for sodium cooled, development of integrated heat exchanger--
REACTORS, FAST - heat exchanger for sodium cooled, development of integrated steam generator--
REACTORS, LIQUID METAL-COOLED - steam generator for sodium cooled, development of integrated heat exchanger--
REACTORS, LIQUID METAL-COOLED - heat exchanger for sodium cooled, development of integrated steam generator--

- 1356 27:23990 (CONF-720579-- , pp 63-71) Behaviour of the aerosols of a sodium fire in a closed system. Colome, J. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.

AEROSOLS - characteristics of sodium combustion, in closed system, (E)
PHENIX FAST REACTOR - ventilation system for, design of
SODIUM - aerosols from combustion of, filtration, production, and transport in closed system of, (E)

- 1357 27:23991 (CONF-720579-- , pp 73-109) U. S. position paper sodium combustion and its extinguishment: techniques and technology. Part I, Part II, and Part III. Morewitz, H.A. (Atomics International, Canoga Park, Calif.); Hilliard, R.K.; Yatabe, J.M.; Smith, F.A. 1972. From Meeting of specialists on sodium combustion and its extinguishment-techniques and technology, Richland, Washington, USA, 22 May 1972, 25 May 1972. In Sodium combustion and its extinguishment: techniques and technology. Meeting of specialists, Richland, Washington, May 22--25, 1972.

EXPERIMENTAL BREEDER REACTOR-II - components of, removal and disposal of sodium residue from
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant combustion in sodium cooled, control of
 SODIUM - combustion of, methods for controlling

- 1358 27:24171 (HEDL-SA--399) Theoretical analysis of sodium removal from Fast Flux Test Facility fuel subassemblies. Borisch, R.R. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 31 May 1972. 12p. (CONF-721065--1). Dep. NTIS.

FAST TEST REACTOR - fuel subassemblies for, analysis of sodium removal methods for irradiated, (T)

- 1359 27:24172 (HEDL-TME--72-152) Feasibility study on in-service inspection of sodium-contaminated IHX tubing with single frequency eddy current NDT equipment. Brown, R.L.; Wandling, C.R. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 1 Dec 1972. Contract AT(45-1)-2170. 33p. Dep. NTIS \$4.00.

EDDY CURRENT TESTING - equipment and method for sodium-contaminated heat exchanger
 FAST FLUX TEST FACILITY - heat exchanger for, eddy current testing of sodium contaminated tubes of intermediate
 HEAT EXCHANGERS - tubes of intermediate, single-frequency eddy-current testing of sodium contaminated
 TUBES - testing of sodium contaminated heat exchanger, single-frequency eddy current

- 1360 27:24524 Electromagnetic pump for liquid metals. Radchenko, R.V.; Mokrushin, S.A. (to Otdel Fiziko-Tekhnicheskikh Problem Energetiki Uralskogo Filiala an SSSR). British Patent 1,299,030. 6 Dec 1972.

ELECTROMAGNETIC PUMPS - design and performance of liquid metal
 METALS - pumps for liquid, design and performance of electromagnetic

- 1361 27:24786 Electromagnetic flowmeters for liquid metals. Thatcher, G. (United Kingdom Atomic Energy Authority, Risley, Eng.). pp 359-380 of Modern developments in flow measurement. Clayton, C.G. (ed.). London; Peter Peregrinus Ltd., 1971. From International conference on modern development in flow measurement, Harwell, UK, 21 Sep 1971. See CONF-710980--.

FLOWMETERS - development of electromagnetic, for liquid metals
 LIQUID METAL FAST BREEDER REACTOR - coolant flow in, development of electromagnetic flowmeter for measuring
 METALS - flow rate of liquid, development of electromagnetic flowmeter for measuring

- 1362 27:25248 (ANCR--1096) Fatigue and creep-fatigue behavior of irradiated stainless steels: available data, simple correlations, and recommendations for additional work in support of LMFBR design. Brinkman, C.R.; Beeston, J.M.; Korth, G.E. (AEROJET NUCLEAR CO., IDAHO FALLS, IDAHO.). Feb 1973. Contract AT(10-1)-1375. 29p. Dep. NTIS \$3.00.

LIQUID METAL FAST BREEDER REACTOR - materials for, radiation testing of stainless steel
 NEUTRONS, FAST - effects on creep and fatigue of Types 304, 316, 347, and 348 stainless steel
 STAINLESS STEEL - radiation effects on creep and fatigue properties of Types 304, 316, 347, and 348, fast neutron

- 1363 27:26702 (ANL-RDP--13) Reactor development program progress report, January 1973. (ARGONNE NATIONAL LAB., ILL.). 28 Feb 1973. Contract W-31-109-eng-38. 155p. AT \$7.60.

EXPERIMENTAL BREEDER REACTOR-II - operations during January 1973
 EXPERIMENTAL BREEDER REACTOR-II; FAST FLUX TEST FACILITY - instrumentation for, development of
 LIQUID METAL FAST BREEDER REACTOR - development during January 1973
 LIQUID METAL FAST BREEDER REACTOR - safety of, heat transfer and fluid flow analysis of
 LIQUID METAL FAST BREEDER REACTOR - fuel elements for, development of
 LIQUID METAL FAST BREEDER REACTOR - physics parameters of
 LIQUID METAL FAST BREEDER REACTOR - coolant for, monitoring and sampling system for liquid sodium

LIQUID METAL FAST BREEDER REACTOR - fuel cycles for, development of

- 1364 27:26704 (HEDL-TME--72-145) Development facilities. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 1972. 173p. AT \$5.45.
- FAST FLUX TEST FACILITY; LIQUID METAL FAST BREEDER REACTOR - development of, description of Hanford facilities for
- 1365 27:26705 (KFK--1272/3) Fast Breeder Project. Third quarterly report, 1972. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY).). Nov 1972. 190p. (In German). (EUR--4849). Dep. NTIS (U.S. Sales Only) \$11.50.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development in West Germany of sodium-cooled, July through September 1972
- 1366 27:26706 (ORNL--4756) Computational methods in nuclear reactor structural design for high-temperature applications: an interpretive report. Gallagher, R.H. (OAK RIDGE NATIONAL LAB., TENN.). Feb 1973. Contract W-7405-eng-26. 89p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR; REACTORS - structure for, evaluation of finite element method for design analysis of
- STRUCTURAL ENGINEERING - calculations for high temperature, use of finite element method in
- 1367 27:26708 (WARD--3045-T-2-B-7) Core restraint development quarterly progress report for period ending November 30, 1972. French, J.W. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). Jan 1973. Contract AT(11-1)-3045. 25p. AT \$4.00.
- LIQUID METAL FAST BREEDER REACTOR - core for, test rig for development of restraint system for, (E)
- 1368 27:26709 Fast reactor development in Germany. Wirtz, K. (Karlsruhe Nuclear Research Center, Ger.). Proc. Amer. Power Conf.; 34: 71-82(1972). See CONF-720465--.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, summary of West German program for
- 1369 27:26710 Fast breeder reactor development in the USSR. Taylor, J.J. (Westinghouse Electric Corp., Pittsburgh). Proc. Amer. Power Conf.; 34: 98-109(1972). See CONF-720465--.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, USSR program for
- 1370 27:26711 (AI-AEC--13049) LMFBR physics programs. Quarterly technical progress report, October--December 1972. Alter, H.; Rose, P.F.; Hubner, R.S.; Otter, J.M.; Alston, T. (ATOMICS INTERNATIONAL, CANOGA PARK, CALIF.). 22 Feb 1973. Contract AT(04-3)-824. 22p. Dep. NTIS \$3.00.
- LIQUID METAL FAST BREEDER REACTOR - design of, Monte Carlo calculations for, (T)
- NEUTRON CROSS SECTIONS - data files on, progress in liquid metal fast breeder reactor program on
- REACTORS, FAST - design of, Monte Carlo calculations for, (T)
- 1371 27:26712 (ANL--7937) EBR-II materials-surveillance program. III. Results of SURV-3. Greenberg, S.; Strain, R.V.; Ebersole, E.R. (ARGONNE NATIONAL LAB., ILL.). Sep 1972. Contract W-31-109-Eng-38. 28p. Dep. NTIS \$4.00.
- BERYLLIUM ALLOYS AND SYSTEMS - radiation effects on properties of, fast neutron
- EXPERIMENTAL BREEDER REACTOR-II - materials for, fast neutron radiation effects on
- INCONEL X750 - radiation effects on properties of, fast neutron
- NEUTRONS, FAST - effects on properties of fast reactor materials

STAINLESS STEEL; STELLITE ALLOYS; TANTALUM - radiation effects on properties of, fast neutron

- 1372 27:26719 (JAERI-M--4826) Study of group constants for design calculations of fast reactors. Tone, T. (JAPAN ATOMIC ENERGY RESEARCH INST., TOKYO.). Jun 1972. 197p. NTIS (U.S. Sales Only).

NEUTRON CROSS SECTIONS - evaluation for fast reactor physics calculations
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - design of, evaluation of group constants for

- 1373 27:26722 (WARD--3045-T-2-C-5) Preliminary LMFBR core structural design criteria. Garkisch, H.D. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). Feb 1973. Contract AT(11-1)-3045. 116p. AT \$5.45.

LIQUID METAL FAST BREEDER REACTOR - core structures for, design limits and material requirements for

- 1374 27:26723 (WARD--3045-T-4-B-5) Analysis of ZPPR-2 measurements. Topical report. Paik, N.C.; Pitterle, T.A. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). Feb 1973. Contract AT(11-1)-3045. 67p. AT \$5.45.

CRITICAL ASSEMBLIES - physics parameters for ZPPR-2, analysis of, (E/T)
LIQUID METAL FAST BREEDER REACTOR - physics parameters for, mockup analysis of, (E/T)

- 1375 27:26724 (WARD--3045-T-4-B-6) Effect of different neutron cross section libraries on the prediction of the breeding ratio in an LMFBR. Doncals, R.A.; Rittenberger, R.V.; Robinson, H. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). Jan 1973. Contract AT(11-1)-3045. 35p. AT \$4.00.

LIQUID METAL FAST BREEDER REACTOR - breeding ratio for, sensitivity to neutron cross section library data
NEUTRON CROSS SECTIONS - evaluation for sensitivity in LMFBR breeding ratio calculations

- 1376 27:26725 (WARD--3045-T-4-B-7) Studies of applications of cross section data and critical experiment data to reactor design quarterly progress report for period ending January 31, 1973. Paik, N.C.; Durston, C. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). Feb 1973. Contract AT(11-1)-3045. 13p. AT \$4.00.

CRITICAL ASSEMBLIES - physics measurements in, evaluation for liquid metal fast breeder design calculations
LIQUID METAL FAST BREEDER REACTOR - design calculations for, evaluation of cross section and critical experiment data for
NEUTRON CROSS SECTIONS - evaluation for liquid metal fast breeder design calculations

- 1377 27:26727 (GEAP--13824-3) LMFBR alternate shutdown system development and testing. Third quarterly report, July--September 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Oct 1972. Contract AT(04-3)-189. 89p. Dep. NTIS.

LIQUID METAL FAST BREEDER REACTOR - shutdown system for, development during July to September 1972 of alternate

- 1378 27:26728 (GEAP--13825-2) LMFBR in-core instrumentation and in-vessel surveillance systems. Second quarterly report, April--June 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Jul 1972. Contract AT(04-3)-189. 58p. Dep. NTIS. AT \$5.45.

LIQUID METAL FAST BREEDER REACTOR - neutron detectors for, development of in-core
LIQUID METAL FAST BREEDER REACTOR - core components for, development of acoustic systems for in-service surveillance of
LIQUID METAL FAST BREEDER REACTOR - subcriticality monitoring system for, development of
LIQUID METAL FAST BREEDER REACTOR - reactivity computer for, development of on-line

- 1379 27:26729 (GEAP--13825-3) LMFBR in-core instrumentation and in-vessel surveillance systems. Third quarterly report, July--September 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Oct 1972. Contract AT(04-3)-189. 37p. Dep. NTIS \$4.00.
- LIQUID METAL FAST BREEDER REACTOR - neutron detectors for, development of in-core
LIQUID METAL FAST BREEDER REACTOR - core components for, development of acoustic systems for in-service surveillance of
- 1380 27:26730 (HEDL-SA--418) Breakdown pulse noise in reactor instrumentation cable systems. Philipp, L.D.; Schemmel, R.R.; Stringer, J.L. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 8 Nov 1972. Contract AT(45-1)-2170. 28p. (CONF-721202--14). Dep. NTIS.
- COAXIAL CABLES - breakdown pulse noise in, effects of fast breeder reactor environment on
LIQUID METAL FAST BREEDER REACTOR - instrumentation for, analysis of breakdown pulse noise in coaxial cables for, (E)
- 1381 27:26732 (ORNL-TM--3716) Subcriticality monitoring system evaluation in SEFOR. Buhl, A.R.; Ackermann, N.J. Jr.; Kryter, R.C.; Robinson, J.C. (OAK RIDGE NATIONAL LAB., TENN.). Feb 1973. Contract W-7405-eng-26. 71p. Dep. NTIS \$5.45.
- LIQUID METAL FAST BREEDER REACTOR; SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR subcriticality monitoring system for, performance of prototype, (E)
- 1382 27:26736 (ANL--7987) Evaluation of coolant impact effects on the reactor cover. (A parameter study of the plug-jump problem for the fast-reactor containment program). Marchertas, A.H.; Chang, Y.W.; Fistedis, S.H. (ARGONNE NATIONAL LAB., ILL.). Nov 1972. Contract W-31-109-eng-38. 33p. Dep. NTIS \$4.00.
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - containment cover for sodium cooled, analysis of coolant impact effects on
- 1383 27:26737 (CEA-CONF--2164) Role of assured safety through can rupture detection installations. Graftieaux, J.; Vasnier, F. (COMMISSARIAT A L'ENERGIE ATOMIQUE, SACLAY (FRANCE). CENTRE D'ETUDES NUCLEAIRES.). 1973. 12p. (In French). (CONF-730108--3). Dep. NTIS (U.S. Sales Only).
- REACTOR FUEL ELEMENTS - failure detection systems for gas cooled, liquid metal cooled, and water cooled, evaluation of
REACTORS, GAS-COOLED; REACTORS, LIQUID METAL-COOLED; REACTORS, WATER-COOLED - fuel element failure detection systems for, evaluation of
- 1384 27:26738 (GEAP--13822-2) LMFBR shielding design experiments and methods evaluation. Second quarterly progress report, April--June 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Jul 1972. Contract AT(04-3)-189. 79p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - core shielding for, neutron transmission through heterogeneous axial and radial, (E/T)
NEUTRONS - transmission through axial and radial core shielding for sodium cooled fast breeder reactors, (E/T)
SHIELDING - neutron transmission through core, for liquid metal fast breeder reactor, (E/T)
- 1385 27:26739 (GEAP--13822-3) LMFBR shielding design experiments and methods evaluation. Third quarterly progress report, July--September 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Oct 1972. Contract AT(04-3)-189. 53p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - core shielding for, neutron transmission through heterogeneous axial and radial, (E/T)
NEUTRONS - transmission through axial and radial core shielding for sodium cooled fast breeder reactors, (E/T)
SHIELDING - neutron transmission through core, for liquid metal fast breeder reactor, (E/T)

- 1386 27:26740 (HEDL-TME--73-16) High strain rate tensile properties of prototypic FTR vessel type 308 weld metal (RM-32). Steichen, J.M. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). Jan 1973. Contract AT(45-1)-2170. 39p. AT \$4.00.
- FAST TEST REACTOR; LIQUID METAL FAST BREEDER REACTOR - containment vessel for, high strain rate tensile properties of Type 308 weld metal in primary
STAINLESS STEEL - tensile properties of Type 308, in reactor vessel welds
- 1387 27:26749 (CEA-CONF--2139) Sodium boiling in a transitory system. Redistribution of flow tests and calculations. Costa, J.; Lafay, J.; Schmitt, F.; Rousseau, J.C. (COMMISSARIAT A L'ENERGIE ATOMIQUE, GRENOBLE (FRANCE). CENTRE D'ETUDES NUCLEAIRES. COMMISSARIAT A L'ENERGIE ATOMIQUE, SACLAY (FRANCE). CENTRE D'ETUDES NUCLEAIRES.). 1971. 20p. (In French). (CONF-721006--6). Dep. NTIS (U.S. Sales Only).
- REACTORS, LIQUID METAL-COOLED - coolant boiling in, characteristics of liquid sodium, (E)
SODIUM - boiling characteristics of liquid, in liquid metal cooled reactor core, (E)
- 1388 27:26750 (CONF-721106--6) Sodium boiling. Fauske, H.K. (ARGONNE NATIONAL LAB., ILL.). 1972. 35p. Dep. NTIS \$3.75.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolants in sodium-cooled, boiling characteristics of
SODIUM - boiling of liquid, characteristics of bulk, explosive, and local
- 1389 27:26753 (GEAP--10580-1) Sodium-heated steam generator model tests at SGTR. Volume 1. Test rig operating experience and cleaning, disassembly, and inspection of the steam generator test models. Scott, J.M.; Armijo, J.S.; Licina, G.J.; Diaz, T.; Gaul, G.G. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Jun 1972. Contract AT(04-3)-189. 127p. Dep. NTIS \$5.45.
- BOILERS - operation and inspection of sodium-heated steam generator test model
LIQUID METAL FAST BREEDER REACTOR - steam generators for, operation and inspection of test model
- 1390 27:26754 (GEAP--10580-2) Sodium-heated steam generator model tests at SGTR. Volume 2. Thermal-hydraulic performance data and analysis. Hunsbedt, A. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Jun 1972. Contract AT(04-3)-189. 205p. Dep. NTIS \$7.60.
- BOILERS - performance of sodium-heated steam generator test model, thermal-hydraulic
LIQUID METAL FAST BREEDER REACTOR - steam generators for, thermal-hydraulic performance of test model, (E)
- 1391 27:26755 (GEAP--13919-1) LMFBR heat exchanger materials development program. First quarterly report, October 1971--August 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Sep 1972. Contract AT(04-3)-189. 46p. Dep. NTIS.
- HEAT EXCHANGERS - materials development program for sodium-cooled fast reactors, October 1971 to August 1972
LIQUID METAL FAST BREEDER REACTOR - heat exchanger materials development program during October 1971 to August 1972
- 1392 27:26757 (KFK--1653) Velocity and temperature distributions in fuel rod bundles with symmetrical and asymmetrical geometry. Hofmann, F. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER REAKTORENTWICKLUNG.). Jan 1973. 88p. (In German). Dep. NTIS (U.S. Sales Only) \$6.50.
- REACTOR FUEL ELEMENTS - temperature distribution in rod bundles, mathematical model for calculating
SNR REACTOR - fuel element assemblies in, temperature distribution in, (E/T)
SNR REACTOR - coolant flow in, effects of fuel rod displacements on temperature and velocity fields in, (E/T)
- 1393 27:26758 (TRG-Report--2270) Acoustically excited vibrations of a flat strip in a liquid

surface. Bentley, P.G.; Rowley, R.; Firth, D. (UNITED KINGDOM ATOMIC ENERGY AUTHORITY, RISLEY (ENGLAND). REACTOR GROUP.). Dec 1972. 14p. Dep. NTIS (U.S. Sales Only).

PROTOTYPE FAST REACTOR - containment vessel for, vibration characteristics of cylindrical, (E/T)
VESSELS - vibration characteristics of cylindrical, in flowing liquid sodium, (E/T)

- 1394 27:26761 Inert-gas transport in liquid metals during boiling experiments. Holtz, R.E.; Fauske, H.K.; Eggen, D.T. (Argonne National Lab., IL). Int. J. Heat Mass Transfer; 16: No. 2, 520-524(Feb 1973).

ARGON - diffusion in liquid sodium during incipient boiling
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant boiling in sodium cooled, inert-gas transport during incipient
SODIUM - argon diffusion in, effects of incipient boiling on

- 1395 27:26763 Changes in the conception of the steam generators and the intermediate exchangers between the Phenix plant and the 1200MW(e) plant project. Robin, M. (CEN de Saclay, Gif-sur-Yvette, France); Perrin, R.; Pouderoux, P.; Tillequin, J. Bull. Inform. A.T.E.N. (Ass. Tech. Energ. Nucl.); No. 96, 15-28(Jul 1972). (In French).

PHENIX FAST REACTOR - steam generator for, modification for 1200 MW(e) plant use

- 1396 27:26769 (COO--2245-1) Coolant mixing in LMFBR rod bundles. Quarterly progress report, June 1--November 30, 1972. Todreas, N.E. (MASSACHUSETTS INST. OF TECH., CAMBRIDGE. DEPT. OF NUCLEAR ENGINEERING.). Feb 1973. Contract AT(11-1)-2245. 21p. AT \$4.00.

LIQUID METAL FAST BREEDER REACTOR - fuel rod bundles for, coolant mixing in
REACTOR FUEL ELEMENTS - coolant mixing in sodium cooled bundle arranged rod type

- 1397 27:26772 (EUR--4905) HERA-1A, heat transfer in rod assemblies. A computer programme for steady state thermohydraulic analysis of multirod fuel bundles cooled by liquid metal under nonboiling conditions. (EUROPEAN ATOMIC ENERGY COMMUNITY, ISPRA (ITALY). JOINT NUCLEAR RESEARCH CENTER.). Feb 1973. 160p. Dep. NTIS (U.S. Sales Only). EUR B.Fr. 210.-.

COMPUTER PROGRAMS - HERA-1A, for steady state thermohydraulic analysis of fuel bundles cooled by nonboiling liquid sodium, Fortran for IBM 370/165
REACTOR FUEL ELEMENTS - heat transfer in sodium cooled, HERA-1A code for analysis of
REACTORS, LIQUID METAL-COOLED - fuel rod bundles for sodium cooled, HERA-1A code for analysis of heat transfer in

- 1398 27:26774 (EURFNR--1053) Axial distribution of several fission products in fuel rods of the irradiation experiment DFR-350. Smailos, E.; Geithoff, D. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER MATERIAL UND FESTKOERPERFORSCHUNG.). Oct 1972. 73p. (KFK--1648). Dep. NTIS \$5.75. Work performed under United States--Euratom Fast Reactor Exchange Program.

FISSION PRODUCTS - distribution in mixed oxide sodium cooled fast reactor fuel elements
REACTOR FUEL ELEMENTS - fission product distribution in mixed oxide sodium cooled fast, axial
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel elements for sodium cooled, axial distribution of fission products in mixed oxide

- 1399 27:26775 (GEAP--10028-44) Sodium-cooled reactors core engineering program. Forty-fourth quarterly report, August--October 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Nov 1972. Contract AT(04-3)-189. 127p. Dep. NTIS.

FAST CERAMIC REACTOR - development during August through October 1972
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, design and radiation testing of
LIQUID METAL FAST BREEDER REACTOR - core restraint system for, development and testing of
LIQUID METAL FAST BREEDER REACTOR - control system for, development of
LIQUID METAL FAST BREEDER REACTOR - fuel elements for, performance of defected
LIQUID METAL FAST BREEDER REACTOR - core blanket for, development of
REACTOR CONTROL SYSTEMS - development of liquid metal fast breeder
REACTOR FUEL ELEMENTS - design of liquid metal fast breeder
REACTOR FUEL ELEMENTS - radiation testing of liquid metal fast breeder

REACTOR FUEL ELEMENTS - performance of defected liquid metal fast breeder

- 1400 27:26776 (GEAP--13735) Performance of unencapsulated (U,Pu)O₂ fuel pins (series F3A) irradiated in EBR-II to 50,000 MWd/Te. McCarthy, W.H.; Bennett, J.W.; Hull, G.R.; Perry, K.J. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Nov 1971. Contract AT(04-3)-189. 186p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, radiation testing of unencapsulated stainless steel clad mixed oxide
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, irradiation testing of Type 304L and Type 316 stainless steel clad fuel pins of, in flowing sodium, (E)
 REACTOR FUEL ELEMENTS - performance of unencapsulated stainless steel clad mixed oxide fast breeder, effects of fast neutron flux and flowing sodium on, (E)
 URANIUM OXIDES UO₂ - PuO₂--UO₂, irradiation testing of Type 304L and Type 316 stainless steel clad fuel pins of, in flowing sodium, (E)
- 1401 27:26777 (GU--5286) Post-irradiation examination of high density uranium--plutonium carbide fuel rods in EBR-II to 65,000 MWd/t burnup. (GULF UNITED NUCLEAR FUELS CORP., ELMSFORD, N.Y.). Dec 1972. Contract AT(11-1)-3059. 71p. AT \$5.45.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, radiation testing of helium-bonded mixed carbide
 PLUTONIUM CARBIDES - PuC--UC, post-irradiation examination of helium-bonded fast reactor fuel elements of
 REACTOR FUEL ELEMENTS - radiation testing of helium-bonded mixed carbide sodium cooled fast breeder
 URANIUM CARBIDES - PuC--UC, post-irradiation examination of helium-bonded fast reactor fuel elements of
- 1402 27:26778 (GULF-GA-A--12502) Description of the replacement mixed-oxide fuel-rod capsules for the F-1 (X094) high-temperature fast-flux irradiation experiment. Flynn, P.W.; Hinz, R.F.; Langer, S.; Lindgren, J.R.; Washburn, T.N. (GULF GENERAL ATOMIC CO., SAN DIEGO, CALIF.). 9 Feb 1973. Contract AT(04-3)-167. 44p. Dep. NTIS \$4.25.
- LIQUID METAL FAST BREEDER REACTOR - fuel elements for, high temperature irradiation test program for mixed oxide stainless steel clad
 PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, high temperature irradiation testing of stainless steel clad fuel elements of
 REACTOR FUEL ELEMENTS - radiation testing of mixed oxide stainless steel clad liquid metal fast breeder, description of program for high temperature
 URANIUM OXIDES UO₂ - PuO₂--UO₂, high temperature irradiation testing of stainless steel clad fuel elements of
- 1403 27:26780 (HEDL-SA--393) Fast reactor safety implications of recent assessments of fuel pin transient behavior. Culley, G.E.; Hanson, J.E.; Partain, W.L.; Scott, J.H.; Waltar, A.E. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 1972. Contract AT(45-1)-2170. 31p. (CONF-721006--7). Dep. NTIS.
- REACTOR FUEL ELEMENTS - performance of mixed oxide sodium cooled fast, during transient overpower conditions
 REACTORS, FAST - fuel pins for sodium cooled, response to transient overpower conditions of
 REACTORS, FAST - safety of sodium cooled, effect of mixed oxide fuel pin transient behavior on
 REACTORS, LIQUID METAL-COOLED - fuel pins for sodium cooled, response to transient overpower conditions of
 REACTORS, LIQUID METAL-COOLED - safety of sodium cooled, effect of mixed oxide fuel pin transient behavior on
- 1404 27:26785 (KFK--1522) Design, irradiation, and examination of the UO₂--PuO₂-fuel-pin-bundle MOL-7A. Kummerer, K.; Geithoff, D.; Weimar, P. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER MATERIAL UND FESTKORPERFORSCHUNG.). Nov 1972. 213p. (In German). Dep. NTIS (U.S. Sales Only) \$12.75.
- PLUTONIUM OXIDES PuO₂ - PuO₂--UO₂, irradiation testing of stainless steel clad fuel pins of
 REACTOR FUEL ELEMENTS - radiation testing of mixed oxide stainless steel clad fast breeder

REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel pins for sodium cooled, design and radiation testing of mixed oxide stainless steel clad
 URANIUM OXIDES UO_2 - PuO_2 -- UO_2 , irradiation testing of stainless steel clad fuel pins of

- 1405 27:26786 (KFK--1724) Mechanical performance analysis of a subassembly box subject to creep and swelling. Liebe, R. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER REAKTORENTWICKLUNG.). Dec 1972. 79p. (In German). Dep. NTIS (U.S. Sales Only) \$5.75.

REACTOR FUEL ELEMENTS - performance of subassembly box on fast, effects of irradiation induced creep and swelling on mechanical, (T)
 REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel subassembly box for sodium cooled, analysis of creep and swelling in, (T)

- 1406 27:26788 (ORNL--4852) Temperature distribution in the duct wall and at the exit of a 19-rod simulated LMFBR fuel assembly (FFM bundle 2A). Fontana, M.H.; Gnadt, P.A.; MacPherson, R.E.; Parsly, L.F.; Wantland, J.L. (OAK RIDGE NATIONAL LAB., TENN.). Apr 1973. Contract W-7405-eng-26. 70p. AT \$5.45.

LIQUID METAL FAST BREEDER REACTOR - fuel assembly for, temperature distribution in duct wall and exit of 19-rod simulated, (E)
 REACTOR FUEL ELEMENTS - temperature distribution in duct wall and exit of 19-rod bundle simulated sodium cooled fast, (E)

- 1407 27:26789 (ORNL-TM--4075) Progress report on LMFBR safety programs for September--October 1972. Cottrell, W.B. (OAK RIDGE NATIONAL LAB., TENN.). Feb 1973. Contract W-7405-eng-26. 56p. AT \$5.45.

LIQUID METAL FAST BREEDER REACTOR - safety program during September and October 1972
 LIQUID METAL FAST BREEDER REACTOR - fuel element failures in, research during September and October 1972 on
 REACTOR FUEL ELEMENTS - failure of sodium cooled fast, research during September and October 1972 on

- 1408 27:26790 (ORNL-TM--4088) Progress report on LMFBR Safety Programs for November--December 1972. Cottrell, W.B.; Fontana, M.H. (OAK RIDGE NATIONAL LAB., TENN.). Feb 1973. Contract W-7405-eng-26. 63p. AT \$5.45.

LIQUID METAL FAST BREEDER REACTOR - safety program during November and December 1972
 LIQUID METAL FAST BREEDER REACTOR - fuel element failures in, research during November and December 1972 on
 REACTOR FUEL ELEMENTS - failure of sodium cooled fast, research during November and December 1972 on

- 1409 27:26791 (RT/ING--(72)12) Studies and preliminary out of pile tests related to sodium fuel interaction. Martini, M.; Crisafulli, N.; Sacco, A.; Scarano, G.; Stefanovic, M. (COMITATO NAZIONALE PER L'ENERGIA NUCLEARE, ROME (ITALY)). 28 Jun 1972. 52p. (CONF-720665--2). Dep. NTIS (U.S. Sales Only).

PEC FAST TEST REACTOR - fuel pins for, out-of-pile tests of sodium interactions with SODIUM - reactions with uranium oxides (UO_2)
 URANIUM OXIDES UO_2 - reactions with sodium

- 1410 27:26792 (WARD--3045-T-2-B-8) Radial blanket design and development. Quarterly progress report for period ending November 30, 1972. Bishop, E.C. (WESTINGHOUSE ELECTRIC CORP., MADISON, PA. ADVANCED REACTORS DIV.). 1972. Contract AT(11-1)-3045. 77p. AT \$5.45.

LIQUID METAL FAST BREEDER REACTOR - blanket for, heat transfer and irradiation tests in radial

- 1411 27:26807 Prototype fast neutron reactor Phenix. Megy, J. (CEN de Saclay, Gif-sur-Yvette, France); Guillemard, B.; Robert, E.; Crette, J.P.; Labat, P. Bull. Inform. A.T.E.N. (Ass. Tech. Energ. Nucl.); No. 96, 6-14(Jul 1972). (In French).

PHENIX FAST REACTOR - performance testing of

- 1412 27:26809 Nuclear fuel logistics. Golan, S. (Atomics International, Canoga Park, CA); Salmon, R. Nucl. News; 16: No. 2, 47-53(Feb 1973).
- REACTOR FUELS - cycle management economics for power
 REACTORS, BREEDER; REACTORS, FAST - fuel cycle requirements for U.S. liquid metal cooled, forecasts on
 REACTORS, GAS-COOLED - fuel cycle requirements for US, forecasts on
 REACTORS, LIQUID METAL-COOLED - fuel cycle requirements for U.S. fast breeder, forecasts on
 REACTORS, POWER - fuel cycle management economics for
 REACTORS, WATER-COOLED - fuel cycle requirements for US, forecasts on
- 1413 27:26811 (AI-AEC--13050) LMFBR Safety Programs. Quarterly technical progress report, October--December 1972. Springer, T.; Koontz, R.L.; Johnson, R.P.; Nelson, C.T.; Baurnash, L.; Vaughn, E.U.; Heisler, M.P. (ATOMICS INTERNATIONAL, CANOGA PARK, CALIF.). 15 Feb 1973. Contract AT(04-3)-824. 25p. Dep. NTIS.
- LIQUID METAL FAST BREEDER REACTOR - safety programs during October through December 1972
 LIQUID METAL FAST BREEDER REACTOR - coolant combustion accidents in, characteristics of, (E/T)
 SODIUM - combustion in liquid metal cooled fast breeder reactor accidents, (E/T)
- 1414 27:26812 (CONF-730304--3) Fault tree as a safety optimization design tool. Griffin, C.W. (ATOMICS INTERNATIONAL, CANOGA PARK, CALIF.). [nd]. 20p. Dep. NTIS \$3.00.
- HEAVY WATER ORGANIC-COOLED REACTOR - safety of, fault tree analysis of
 REACTOR SAFETY - fault tree analysis of, review on
 REACTORS, LIQUID METAL-COOLED - safety of sodium cooled, fault tree analysis of
 REACTORS, POWER - safety of, fault tree analysis of
- 1415 27:26816 (EURFNR--1055) Safety of SNR-300 and the aerosol model. A summary report of the RCN aerosol research, 1967--1971. van de Vate, J.F. (REACTOR CENTRUM NEDERLAND, PETTEN.). Jun 1972. 125p. (RCN--174). Dep. NTIS (U.S. Sales Only). Work performed under United States--Euratom Fast Reactor Exchange Program.
- AEROSOLS - deposition in sodium cooled fast reactor containment following accidents, (E/T)
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - accidents in sodium cooled, aerosol production and containment following, (E/T)
 SNR REACTOR - accidents at, aerosol production and containment in major hypothetical, (E/T)
- 1416 27:26817 (EURFNR--1067) Principles and feasibility of a computer-aided monitoring of the SNR core. Audoux, M. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER REAKTORENTWICKLUNG.). Dec 1972. 69p. (KFK--1593; EUR--4729). Dep. NTIS \$5.50. Work performed under United States--Euratom Fast Reactor Exchange Program.
- SNR REACTOR - core of, feasibility of computer aided monitoring of
- 1417 27:26818 (GEAP--13923-1) Sodium-cooled reactors safety engineering program. First quarterly report, August--October 1972. (GENERAL ELECTRIC CO., SUNNYVALE, CALIF. BREEDER REACTOR DEPT.). Nov 1972. Contract AT(04-3)-189. 16p. Dep. NTIS.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - safety of sodium cooled, coordination of information on
- 1418 27:26819 (HEDL-SA--475) Liquid metal cooled fast reactor safety. Peterson, R.E. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). [nd]. Contract AT(45-1)-2170. 23p. (CONF-721106--5). Dep. NTIS.
- REACTORS, BREEDER; REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - safety of sodium-cooled, design aspects of

- 1419 27:26831 (EURFNR--1069) Study of the possible application of heat pipes in steam generators of sodium-cooled reactors. Hitschke, U. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY)). INSTITUT FUER REAKTORENTWICKLUNG.). Dec 1972. 89p. (KFK--1664). Dep. NTIS \$5.45. Work performed under United States--Euratom Fast Reactor Exchange Program.

BOILERS - heat pipes for sodium cooled reactor steam generators, performance of, (T)
HEAT PIPES - performance in steam generators of sodium cooled reactors, (T)
REACTORS, LIQUID METAL-COOLED - steam generators for sodium cooled, use of heat pipes in, (T)

- 1420 27:26840 (KFK--1593) Principles and feasibility of a computer aided safety control of the SNR core. Audoux, M. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY)). INSTITUT FUER REAKTORENTWICKLUNG.). Dec 1972. 60p. (In German). (EUR--4729). Dep. NTIS (U.S. Sales Only) \$5.00.

SNR REACTOR - control system for, description of digital computer safety

- 1421 27:26858 (DOCKET-50016--182) Enrico Fermi Atomic Power Plant, Unit 1. Provisional operating license DPR-9, Amendment 5. (DIRECTORATE OF LICENSING (AEC), WASHINGTON, D.C.). 29 Dec 1972. 3p. Dep. NTIS \$3.00.

FERMI FAST BREEDER REACTOR - operation of, extension of license expiration date for
FERMI FAST BREEDER REACTOR - power level for, revised maximum decay heat

- 1422 27:26928 (DOCKET-50016--183) Enrico Fermi Atomic Power Plant, Unit 1. Technical specifications, change 33. (DIRECTORATE OF LICENSING (AEC), WASHINGTON, D.C.). 26 Jan 1973. 3p. Dep. NTIS \$3.00.

FERMI FAST BREEDER REACTOR - fuel element unloading of, revised dollar subcritical requirements during

- 1423 27:26929 (DOCKET-50016--184) Enrico Fermi Atomic Power Plant, Unit 1. Technical specifications, change 34. (DIRECTORATE OF LICENSING (AEC), WASHINGTON, D.C.). 12 Mar 1973. 13p. Dep. NTIS \$3.00.

FERMI FAST BREEDER REACTOR - cooling system for, revised technical specifications for
FERMI FAST BREEDER REACTOR - emergency core cooling system for, deletion of technical specifications for
FERMI FAST BREEDER REACTOR - control system for, revised technical specifications for
FERMI FAST BREEDER REACTOR - radioactive waste disposal system for, revised technical specifications for
FERMI FAST BREEDER REACTOR - electric power system for, deletion of technical specifications for
FERMI FAST BREEDER REACTOR - auxiliary systems for, revised technical specifications for
FERMI FAST BREEDER REACTOR - personnel for, revised technical specifications for

- 1424 27:27064 (TIM--791) Servo-Amplifier Job No. FED 128-220. Banic, C.V. (PRATT AND WHITNEY AIRCRAFT, MIDDLETOWN, CONN. CONNECTICUT ADVANCED NUCLEAR ENGINEERING LAB.). 17 Jun 1964. Contract AT(30-1)-2789. 12p. Dep. NTIS. Declassified 20 Oct 1971.

LITHIUM-COOLED REACTOR EXPERIMENT - control system for, performance testing of
servo-amplifier for drum drive shim motors for, (E)

- 1425 27:27084 (CEA-N--1561) Physics investigations of sodium cooled fast reactors. Core Z1 Masurca in Sneak-assembly 6D. Hammer, P.; Plum, F. (comps.) (COMMISSARIAT A L'ENERGIE ATOMIQUE, CADARACHE (FRANCE)). CENTRE D'ETUDES NUCLEAIRES. KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER ANGEWANDTE SYSTEMTECHNIK UND REAKTORPHYSIK.). Sep 1972. 94p. (In French). (KFK--1581). Dep. NTIS (U.S. Sales Only).

CRITICAL ASSEMBLIES - physics experiments on Z1 MASURCA core of SNEAK
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - physics parameters for sodium cooled plutonium-fueled, mockup experiments on

- 1426 27:27086 (HEDL-SA--335) Ultrasonic under-sodium viewing system development for the FFTF.

Ord, R.N.; Smith, R.W. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 15 Apr 1972. Contract AT(45-1)-2170. 14p. (CONF-720607--31). Dep. NTIS.

FAST TEST REACTOR - remote viewing equipment for, development of ultrasonic under-sodium

- 1427 27:27087 (HEDL-SA--346) Fission gas control at FFTF. Foley, C.J. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). [nd]. Contract AT(45-1)-2170. 9p. (CONF-720823--17). Dep. NTIS.

FAST FLUX TEST FACILITY - coolant cover gas for, system for continuous removal of fission product krypton and xenon from argon

- 1428 27:27088 (HEDL-SA--383) Three-dimensional analysis of the FTR shield mock-up experiment. Boulette, E.T.; Bunch, W.L.; Marr, D.R. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). 1972. Contract AT(45-1)-2170. 16p. (CONF-721018--8). Dep. NTIS.

FAST TEST REACTOR - neutron flux distribution in, diffusion theory determination of, (T)
FAST TEST REACTOR - shielding design for, experimental program on, (E)

- 1429 27:27089 (HEDL-SA--406) FTR neutronics: status, problems, and development programs. Hofmann, P.L. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). May 1972. Contract AT(45-1)-2170. 49p. (CONF-720901--17). Dep. NTIS.

FAST TEST REACTOR - design parameters for
FAST TEST REACTOR - physics calculations for
FAST TEST REACTOR - testing programs for, description of startup and initial operation

- 1430 27:27090 (HEDL-TME--72-68) FFTF control element hydraulic tests. Keyes, R.E.; Collingham, R.E. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). Nov 1972. Contract AT(45-1)-2170. 68p. AT \$5.45.

FAST TEST REACTOR - control element assembly for, hydraulic testing of

- 1431 27:27091 (HEDL-TME--72-142) Influence of sodium vapor traps on validity of cover gas samples. Barton, G.B. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). Dec 1972. Contract AT(45-1)-2170. 29p. AT \$4.00.

FAST TEST REACTOR - coolant cover gas samples for, effect of sodium vapor trap on impurity concentrations in

- 1432 27:27092 (HEDL-TME--72-150) Results of sodium removal tests on IHX locking pin subassemblies using the moist nitrogen, alcohol, and evaporation processes. Borisch, R.R.; Maffei, H.P. (HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.). Feb 1973. 28p. AT \$4.00.

FAST TEST REACTOR - heat exchanger support plate for, sodium removal from locking pin joints on, (E)

- 1433 27:27105 (RT/ING--(72)10) Problems connected with sodium fuel interaction in the PEC reactor safety evaluation. De Cecco, L.; Santandrea, E. (COMITATO NAZIONALE PER L'ENERGIA NUCLEARE, ROME (ITALY)). 23 Jun 1972. 28p. (CONF-720109--3; RVT-PEC--610). Dep. NTIS (U.S. Sales Only).

PEC FAST TEST REACTOR - fuel element failure in, analysis of sodium--fuel interactions in

- 1434 27:27115 (EURFNR--1039) High-temperature embrittlement. Closs, K.D. (KERNFORSCHUNGSZENTRUM, KARLSRUHE (WEST GERMANY). INSTITUT FUER MATERIAL UND FESTKORPERFORSCHUNG.). Jul 1972. 36p. (KFK--1450). Dep. NTIS \$4.00. Work performed under United States--Euratom fast reactor exchange program.

BELGIAN REACTOR-2; DOUNREAY FAST REACTOR; PROTOTYPE FAST REACTOR - components for, helium generation in stainless steel

REACTORS, FAST - components for, analysis of high temperature embrittlement of stainless steel
 SNR REACTOR - components for, helium generation in stainless steel
 STAINLESS STEEL - radiation effects on high temperature embrittlement of, neutron

- 1435 27:27143 (LIB/Trans--496) Prompt supercritical power excursions in fast reactors. Haefele, W. Translated by A. Rose (Australian Atomic Energy Commission Research Establishment, Lucas Heights) from Nukleonik; 5: No. 5, 201-208(1963). Dep. NTIS (U.S. Sales Only).
- REACTORS, FAST; SOUTHWEST EXPERIMENTAL FAST OXIDE REACTOR - power excursions in, analysis of prompt supercritical, (T)
- 1436 27:27284 (RDT-F--3-40-T(1-73)) Methods for the analysis of sodium and cover gas. (DIVISION OF REACTOR DEVELOPMENT AND TECHNOLOGY (AEC), WASHINGTON, D. C.). Jan 1973. 256p. RSO.
- REACTORS, LIQUID METAL-COOLED - coolant for, standards for chemical analysis and sampling of sodium
 SODIUM - analysis and sampling of liquid, standards for
- 1437 27:27487 (ORNL-TM--4016) LMFBR fuel cycle studies progress report for September 1972, No. 43: aqueous fuel reprocessing. Unger, W.E.; Blanco, R.E.; Crouse, D.J.; Irvine, A.R.; Watson, C.D. (OAK RIDGE NATIONAL LAB., TENN.). Nov 1972. Contract W-7405-eng-26. 29p. Dep. NTIS \$3.00.
- LIQUID METAL FAST BREEDER REACTOR - fuels for, research progress on reprocessing of
 REACTOR FUELS - reprocessing of LMFBR, research progress on
- 1438 27:28324 Design of a remote sodium-removal system. Wilber, W.W. (Aerojet Manufacturing Co., Fullerton, CA). Conf. Remote Syst. Technol., Proc.; 20: 154-159(1972). See CONF-720903--.
- FAST FLUX TEST FACILITY - fuel assemblies for, design of in-cell equipment for sodium removal from
 REACTOR FUEL ELEMENTS - sodium removal from assemblies of, FFTF hot cell equipment for remote
 REMOTE-HANDLING EQUIPMENT - design and operation of, for removing sodium from fuel assemblies in hot cell at FFTF
 SODIUM - removal from fuel assemblies in hot cell at FFTF, equipment and method for remote
- 1439 27:28334 High-Temperature Sodium Facility. Gray, D. (Westinghouse Hanford Co., Richland, WA). Conf. Remote Syst. Technol., Proc.; 20: 256-260(1972). See CONF-720903--.
- IN-PILE LOOPS - description of FFTF, for testing reactor components in sodium environment
 LIQUID METAL FAST BREEDER REACTOR - components for, design of High-Temperature Sodium Facility for sodium environment testing of
 SODIUM - effects on LMFBR components, design of High-Temperature Sodium Facility for studying
- 1440 27:29434 LMFBR program in the U.S.: latest developments. Com. Naz. Energ. Nucl., Notiz.; 18: No. 11, 68-72(Nov 1972). (In Italian).
- LIQUID METAL FAST BREEDER REACTOR - development of, status of program for
- 1441 27:29446 Electric utilities and breeder reactors. Angelini, A.M. (Ente Nazionale Energia Elettrica, Rome). Energ. Nucl. (Milan); 20: No. 2, 81-87(Feb 1973). (In Italian).
- REACTORS, BREEDER - development of, survey on
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - development of sodium cooled, survey on
- 1442 27:29448 (NIIAR-P--133) Investigations of temperature distributions in the BOR-60 core.

Kazachkovskii, D.D.; Antipin, G.K.; Gryazev, V.M.; Kevrolev, V.P.; Kondrat'ev, V.I.; Krasnoyarov, N.V.; Krupkin, L.K.; Korneev, V.I.; Lukasevich, B.I.; Markin, S.A.; Masnii, V.F.; Smirnov, A.M. (SCIENTIFIC RESEARCH ATOMIC REACTOR INST., MELEKESS (USSR)). 1972. 30p. (In Russian). INIS.

BOR-60 REACTOR - core temperature distributions in, non-uniformity of

- 1443 27:29449 Nuclear reactor. Arlaud, J.C. (to Commissariat a l'Energie Atomique). French Patent 2,119,834. 11 Aug 1972. (In French).
REACTORS, FAST - design of boiling liquid metal-cooled, using helium for secondary coolant
REACTORS, LIQUID METAL-COOLED - design of boiling, using helium for secondary coolant
- 1444 27:29453 (RDT-E--6-18-T(2-73)) Instrument tree for sodium cooled reactors (fabrication only). (DIVISION OF REACTOR DEVELOPMENT AND TECHNOLOGY (AEC), WASHINGTON, D. C.). Feb 1973. 28p. RSO.
REACTORS, LIQUID METAL-COOLED - instrument trees for liquid sodium cooled, standard for fabrication of
STANDARDS - instrument trees for liquid sodium cooled reactors, fabrication of
- 1445 27:29460 Device for coupling nuclear reactor control rods to drive linkage therefor and for maintaining control rods in reactor core. Schabert, H.P.; Pawlitzki, R. (to Siemens Aktiengesellschaft). U. S. Patent 3,720,580. 13 Mar 1973.
REACTOR CONTROL ELEMENTS - drives for liquid sodium cooled, coupling system for
REACTORS, LIQUID METAL-COOLED - control rod drives for, coupling system for
- 1446 27:29472 Mechanism for preventing cooling disturbances or power excursions. Schmidt, G. German Patent 2,055,455. 18 May 1972. (In German).
REACTORS, LIQUID METAL-COOLED - coolant superheating in, method for prevention of disturbances from
- 1447 27:29474 Comparison of single and multicell heat transfer analyses near nuclear reactor assembly walls. France, D.M.; Ginsberg, T. (Argonne National Lab., IL). Nucl. Eng. Des.; 23: No. 2, 141-146(1972).
REACTOR FUEL ELEMENTS - heat transfer near walls of subassemblies of liquid metal cooled, comparison of single and multicell, (T)
REACTORS, LIQUID METAL-COOLED - fuel assemblies for, comparison of single and multicell heat transfer analyses at walls of
- 1448 27:29477 Boiling pressure drop behavior for sodium flowing in multiple, interconnected channels. Baroczy, C.J.; Logan, D.; Morewitz, H.A. (Atomics International, Canoga Park, CA). Chem. Eng. Progr., Symp. Ser.; 67: No. 119, 81-93(1971).
REACTOR FUEL ELEMENTS - cooling channels in sodium cooled, boiling pressure drop in interconnected, (E/T)
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- 1449 27:29478 Accidents with liquid sodium. Means of protection and safety. de la Torre Cabezas, M. (Junta de Energia Nuclear, Madrid). Energ. Nucl. (Madrid); 16: No. 78, 439-451(1972). (In Spanish).
REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant fires in, methods for protection from sodium
SODIUM - combustion in sodium cooled reactors, methods for protection from
- 1450 27:29484 (GEAP--5725) Velocity distribution around fuel pins in sodium-cooled fast reactors with triangular fuel pin arrays. Cook, K.W. (GENERAL ELECTRIC CO., SUNNYVALE,

CALIF. BREEDER REACTOR DEVELOPMENT OPERATION.). Dec 1968. 140p. Dep. NTIS \$3.00.

REACTOR FUEL ELEMENTS - coolant flow in, effects of bundle configuration on liquid metal
 REACTORS, FAST - fuel assemblies for liquid sodium cooled, effects of configuration on
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 REACTORS, LIQUID METAL-COOLED - fuel assemblies for fast, effects of configuration on
 liquid metal flow distribution in

- 1451 27:29488 (UJV--2888-R) Numerical calculation of the Nusselt number in longitudinal flow around an assembly of fuel rods. Pfann, J. (CESKOSLOVENSKA AKADEMIE VED, PRAGUE. USTAV JADERNEHO VYZKUMU.). 1972. 55p. (In Czech). Dep. NTIS (U.S. Sales Only) \$4.75.

REACTOR FUEL ELEMENTS - coolant flow in, effects of bundle configuration on liquid metal
 REACTORS, LIQUID METAL-COOLED - fuel assemblies for, effects of bundle configuration on
 liquid metal flow in

- 1452 27:29494 Temperature fields in fuel, cladding, and coolant in fuel elements with eccentric geometry. Hofmann, F. (Kernforschungszentrum, Karlsruhe, Ger.). Chem. Eng. Progr., Symp. Ser.; 67: No. 119, 55-63(1971).

REACTOR FUEL ELEMENTS - temperature fields in assemblies of sodium cooled breeder, effects of configuration on
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel assemblies for sodium cooled, effects of configuration on temperature fields and coolant flow in

- 1453 27:29495 Low quality critical flow experiments in a forced convection boiling sodium loop. Costa, J.; Charlety, P. Chem. Eng. Progr., Symp. Ser.; 67: No. 119, 72-80(1971).

REACTOR FUEL ELEMENTS - coolant boiling in subassemblies of sodium cooled fast, critical flow conditions in forced convection, (E)
 REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - fuel subassemblies for sodium cooled, critical flow conditions in forced convection boiling in, (E)

- 1454 27:29497 Examination and disassembly of failed EBR-II subassemblies. Hampson, D.C.; Paige, D.M.; Brak, S.B.; Taylor, H.A. (Argonne National Lab., IL). Conf. Remote Syst. Technol., Proc.; 20: 46-51(1972). See CONF-720903--.

EXPERIMENTAL BREEDER REACTOR-II - fuel subassemblies from, equipment for disassembly and inspection of failed

- 1455 27:29498 Elementary rod vibration measurements in a hexagonal array of 19 wire wrapped fuel rods with parallel flow. Graves, A.W.; Davidson, C.R. (Atomics International, Canoga Park, CA). Advan. Instrum.; 26: 625.1-625.5(1971). See CONF-711003--(Pt.2).

LIQUID METAL FAST BREEDER REACTOR - fuel elements for, vibration testing of wire wrapped bundle arranged rods, (E)
 REACTOR FUEL ELEMENTS - vibration testing of liquid metal cooled wire wrapped bundle arranged rods, (E)

- 1456 27:29502 Device for manipulating nuclear fuel assemblies. Renaux, C. (to Commissariat a l'Energie Atomique). French Patent 2,124,139. 22 Sep 1972. (In French).

REACTOR FUEL ELEMENTS - handling of sodium-cooled, device for
 REACTORS, FAST - fuel assemblies for sodium-cooled, device for handling
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- 1457 27:29504 LMFBR fuel handling system based on SEFOR experience. Franckx, L.; Myers, R. (General Electric Co., Sunnyvale, CA). Contract AT(04-3)-540. Conf. Remote Syst. Technol., Proc.; 20: 14-28(1972). See CONF-720903--.

LIQUID METAL FAST BREEDER REACTOR - refueling system for, design and operation of

- 1458 27:29505 Under-sodium dimensional gauging of Fermi subassemblies. Matte, J. III (Atomic Power Development Associates, Inc., Detroit); Pugh, J.T. Conf. Remote Syst. Technol., Proc.; 20: 29-35(1972). See CONF-720903--.
- FERMI FAST BREEDER REACTOR - fuel subassembly distortion in, optical equipment and methods for under-sodium measurement of
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- 1459 27:29506 Failed-fuel transfer system for the EBR-II. Divona, C.J. (Argonne National Lab., IL). Conf. Remote Syst. Technol., Proc.; 20: 36-45(1972). See CONF-720903--.
- EXPERIMENTAL BREEDER REACTOR-II - fuel elements for, system for transfer of failed
- 1460 27:29515 Analysis of transient forced convection liquid-metal boiling in narrow tubes. Fauske, H.K.; Grohmes, M.A. (Argonne National Lab., IL). Chem. Eng. Progr., Symp. Ser.; 67: No. 119, 64-71(1971).
- REACTORS, FAST; REACTORS, LIQUID METAL-COOLED - coolant loss of flow accidents in sodium cooled, analysis of transient forced convection boiling during
- 1461 27:29523 Transmission of heat and pressure drops in vapor generators heated by the circulation of Na. Robin, M.G. (CEN de Saclay, Gif-sur-Yvette, France). Rev. Gen. Therm.; 11: No. 132, 1189-1208(Dec 1972). (In French).
- BOILERS - heat transfer characteristics of sodium cooled reactor
PHENIX FAST REACTOR - steam generator for, heat transfer and pressure drop characteristics of
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- 1462 27:29527 Recent developments of France's nuclear power program. Fiorentini, P. Com. Naz. Energ. Nucl., Notiz.; 18: No. 11, 45-60(Nov 1972). (In Italian).
- NUCLEAR POWER PLANTS - development of French, review of
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- 1463 27:29544 Positioning device for fuel and breeder assemblies in the SNR 300 sodium-cooled fast reactor. Hans, R.; Maxam, S. (Internationale Atomteaktorbau GmbH, Bensberg, Ger.). Siemens Rev.; 40: No. 1, 27-31(Jan 1973).
- SNR REACTOR - fuel assemblies for, positioning device for alignment of
- 1464 27:29549 (DOCKET-50016--185) Enrico Fermi Atomic Power Plant, Unit 1. Report for November 1972. (POWER REACTOR DEVELOPMENT CO., DETROIT, MICH.). 3 Apr 1973. 12p. (PRDC-EF--111). Dep. NTIS \$3.00.
- FERMI FAST BREEDER REACTOR - maintenance during November 1972
FERMI FAST BREEDER REACTOR - testing during November 1972
- 1465 27:29550 (DOCKET-50016--186) Enrico Fermi Atomic Power Plant, Unit 1. Report for December 1972. (POWER REACTOR DEVELOPMENT CO., DETROIT, MICH.). 3 Apr 1973. 15p. (PRDC-EF--112). Dep. NTIS \$3.00.
- FERMI FAST BREEDER REACTOR - maintenance during December 1972
FERMI FAST BREEDER REACTOR - testing during December 1972
- 1466 27:29759 Irradiation device for a fast neutron nuclear reactor. Besoux, M.; Mesnage, B.; Richier, A. (to Commissariat a l'Energie Atomique). French Patent 2,126,079. 6 Oct 1972. (In French).

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- 1467   27:29767 Construction of the structural assembly of a reactor. Brandstetter, R. (to
Commissariat a l'Energie Atomique). French Patent 2,124,140. 22 Sep 1972. (In French).
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Divisione Affari Internazionali e Studi Economici, Comitato Nazionale per l'Energia Nucleare, Rome, Italy.

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 (Italy). Divisione Affari Internazionali e Studi
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Dounreay Experimental Reactor Establishment, Reactor Group, United Kingdom Atomic Energy Authority, Caithness, Scotland.

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see Gosudarstvennyi Komitet po Ispol'zovaniyu Atomnoi
 Energii SSSR, Obninsk. Fiziko-Energeticheskii
 Institut.

France. Commissariat a l'Energie Atomique. Centre d'Etudes Nucleaires, Cadarache.

see Commissariat a l'Energie Atomique, Cadarache
 (France). Centre d'Etudes Nucleaires.

France. Commissariat a l'Energie Atomique. Centre d'Etudes Nucleaires, Fontenay-aux-Roses.

see Commissariat a l'Energie Atomique, Fontenay-aux-
 Roses (France). Centre de Etudes Nucleaires.

France. Commissariat a l'Energie Atomique. Centre d'Etudes Nucleaires, Grenoble.

see Commissariat a l'Energie Atomique, Grenoble
 (France). Centre a Etudes Nucleaires.

France. Commissariat a l'Energie Atomique. Centre d'Etudes Nucleaires, Saclay.
see Commissariat a l'Energie Atomique, Saclay (France).
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see also Gulf General Atomic Co., San Diego, Calif.

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Harvard School of Public Health, Boston, Mass. Harvard Air Cleaning Lab.

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 HITACHI, LTD., TOKYO (JAPAN).
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Interatom, Bensberg, Germany.
 see Internationale Atomreaktorbau G.m.b.H., Bensberg (West Germany).
 INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA (AUSTRIA).
 Directory of nuclear reactors. IX, 382 (STI/PUB-296)
 Examples of research reactor utilization costs and trends in US notes, 485 (IAEA-130, pp 201-14)
 International Working Group on Fast Reactors fifth annual meeting, Vienna, Austria, 19--21 April 1972. Summary report, 1334 (CONF-720466-(Pt.2))
 Specialists' meeting on "fission and corrosion product behavior in primary systems of LMFBR's," September 20--22, 1971, Bensberg/FRG. Summary report, 890 (CONF-710959)
 INTERNATIONALE ATOMREAKTORBAU G.M.B.H., BENSBERG (WEST GERMANY).
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 Italy. Comitato Nazionale per l'Energia Nucleare.
 Divisione Affari Internazionali e Studi Economici, Rome.
 see Comitato Nazionale per l'Energia Nucleare, Rome (Italy). Divisione Affari Internazionali e Studi Economici.

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 AEC authorizing legislation fiscal year 1973. Part 5: Volume 1. Environmental statements 1 through 8.
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 see Kernforschungszentrum, Karlsruhe (West Germany).
KOBE STEEL LTD. (JAPAN).
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L

- Lewis Research Center, National Aeronautics and Space Administration.**
 see National Aeronautics and Space Administration, Cleveland, Ohio. Lewis Research Center.
LOS ALAMOS SCIENTIFIC LAB., N. MEX.
 Advanced Plutonium Fuels Program. Quarterly progress report, April 1--June 30, 1972, 1229 (LA-5067)
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M

- Manhattan District. Argonne National Lab., Chicago.**
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Manhattan District. Los Alamos Scientific Lab., N. Mex.
 see Los Alamos Scientific Lab., N. Mex.
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O

- OAK RIDGE NATIONAL LAB., TENN.**
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Aqueous processing of LMFBR fuels. Progress report No. 3, May 1969, 544 (ORNL-TM-2624)

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Chemical Engineering Division, fuel cycle technology quarterly report, October--December 1971, 458 (ANL-7902)

Chemical Engineering Division, fuel cycle technology quarterly report, January--March 1972, 893 (ANL-7931)

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- Fast reactor shielding monthly progress report for May 1972, 189a No. 10028, Activity No. 40 01 61, 785 (ORNL-TM-3881)
- Fast reactor shielding monthly progress report for June 1972, 189a No. 10028, Activity No. 40 01 61, 822 (ORNL-TM-3928)
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- (ANL-7871)
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T

- TADMOR, J., Environmental behavior of radioactive sodium: transport, uptake, and population dose, 1264 (COO-3019-2)
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Review of fast reactor progress in Japan, 1340 (CONF-720466-(Pt.2), pp 157-173)

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Semiannual progress report, September 1, 1971--February 29, 1972, 734 (COO-3019-1)

Semiannual progress report, September 1, 1971--February 29, 1971, 784 (COO-3019-1)

UNGER, W. E., Aqueous processing of LMFBR fuels. Progress Report No. 2, April 1969, 543 (ORNL-TM-2585)

Aqueous processing of LMFBR fuels. Progress report No. 3, May 1969, 544 (ORNL-TM-2624)

Aqueous processing of LMFBR fuels. Progress report No. 4, June 1969, 545 (ORNL-TM-2650)

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- Chemical Engineering Division fuel cycle technology quarterly report, April--June 1972, 1142 (ANL-7946)
- Chemical Engineering Division: burnup, cross sections, and dosimetry semiannual report, July--December 1971, 742 (ANL-7879)
- Chemical Engineering Division, fuel cycle technology quarterly report, October--December 1971, 458 (ANL-7902)
- Chemical Engineering Division, fuel cycle technology quarterly report, January--March 1972, 893 (ANL-7931)
- Prog. rpt. on fuel cycle technology, 4--6/71, 191 (ANL-7841)
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- Aqueous processing of LMFBR fuels. Progress report No. 3, May 1969, 544 (ORNL-TM-2624)
- Aqueous processing of LMFBR fuels. Progress report No. 4, June 1969, 545 (ORNL-TM-2650)
- WATSON, C.D., LMFBR fuel cycle studies progress report for September 1972, No. 43: aqueous fuel reprocessing, 1437 (ORNL-TM-4016)
- WATSON, James E., Status report: U. S. LMFBR Program, 914
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