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BIBLIOGRAPHY

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- 1.* Effect of Pressure and Stress on Water Transport in Intact and Fractured Gabbro and Granite, D. Trimmer, B. Bonner, H.C. Heard, and A. Duba, published in "Journal of Geophysical Research", vol. 85, pp 7059-7071, 1980, also available as Lawrence Livermore National Laboratory Report UCRL-83932, September 1977.
2. Waste Isolation Projects--FY 1977, L. D. Ramspott Editor, Lawrence Livermore Laboratory Report UCRL-50050-77, January 18, 1978.
- 2a. A Preliminary Evaluation of 30 Potential Granitic Rock Sites for a Radioactive Waste Storage Facility in Southern Nevada, C. R. Boardman and C. F. Knutson, GeoEnergy Corporation, submitted to Lawrence Livermore National Laboratory under subcontract, Contractor Report not numbered and not published, Lawrence Livermore National Laboratory Report UCRL-12933, February 15, 1978.
- 3.* Underground Heater Test--Climax Granitic Stock, L. B. Ballou, published in Proceedings of the National Terminal Storage Program Progress Report for Period October 1, 1976, to September 30, 1977, Union Carbide Corp., Office of Waste Isolation Report Y/OWI-9, pp. 218-223, April 1978.
- 4.* Laboratory Measured Material Properties of Granodiorite, Climax Stock, Nevada Test Site, R. Lingle and H. R. Pratt, Terra Tek, Inc., Report TR78-47, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15811, August 1978.
- 5.* Instrumentation Program for Rock Mechanics and Spent Fuel Tests at the Nevada Test Site, H. R. Pratt, W. H. Hustrulid and R. Simonson, Terra Tek, Inc., Contractor Report TR78-48, submitted to Lawrence Livermore Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15809, August 1978.
6. Measuring the Permeability of Eleana Argillite from Area 17, Nevada Test Site. Using the Transient Method, W. Lin, Lawrence Livermore National Laboratory Report UCRL-52604, December 11, 1978.
7. Waste Isolation Projects: FY 1978, L. D. Ramspott, Editor, Lawrence Livermore National Laboratory Report UCRL-50050-78, January 12, 1979.
- 8.* Technical Concept for Rock Mechanics Tests, Climax Granite, Nevada Test Site, J. Hearst, Lawrence Livermore National Laboratory Report UCID-18009, February 1979.
- 9.* Simultaneous Measurements of Permeability, Electrical Conductivity and Ultrasonic Velocity in Igneous and Metamorphic Rocks, H. C. Heard, D. Trimmer, W. Lin, A. Duba, and B. Bonner, published in "Trans Am. Geop. Union 46", pp. 1113, 1980, also available as Lawrence Livermore National Laboratory Report UCRL-82389, February 1979.
- 10.* Permeability of Generic Repository Rocks at Simulated In Situ Conditions, H. C. Heard, D. Trimmer, A. Duba, and B. Bonner, published in the Proceedings of the Workshop on Low-Flow, Low Permeability Measurements in Largely Impermeable Rocks, 1979, OECD Publication Center, Washington, D. C. 20006, also available as Lawrence Livermore National Laboratory Report, UCRL-82609, April 1979.

- 11.* Technical Concept for a Test of Geologic Storage of Spent Reactor Fuel in the Climax Granite, Nevada Test Site, L. D. Ramspott, L. B. Ballou, R. C. Carlson, D. N. Montan, T. R. Butkovich, J. E. Duncan, W. C. Patrick, D. G. Wilder, W. G. Brough and M. C. Mayr, Lawrence Livermore National Laboratory Report UCRL-52796, June 1979.
12. Proceedings of a Workshop on Thermomechanical Modeling for a Hardrock Waste Repository, F. Holzer and L. Ramspott, Editors, Lawrence Livermore National Laboratory Report UCAR-10043, June 1979.
- 13.* Laboratory Measured Material Properties of Quartz Monzonite, Climax Stock, Nevada Test Site, H. Pratt, R. Lingle and T. Schrauf, Terra Tek, Inc., submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15073, June 1979.
- 14.* Instrument Selection, Installation, and Analysis of Data for the Spent Fuel Mine-By, Nevada Test Site, Climax Stock, T. Schrauf and M. Board, Terra Tek, Inc., Report TR 79-51, submitted to Lawrence Livermore Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15076, July 1979.
- 15.* Thermal Expansion and Inferred Permeability of Climax Quartz Monzonite to 300°C and 27.6 MPa, H. C. Heard, published in "International Journal of Rock Mechanics and Mining Science", Vol. 17, p. 289-296, 1980, also available as Lawrence Livermore National Laboratory Report UCRL-83697, December 1979.
- 16.* Climax Granite Test Results, L. D. Ramspott, Lawrence Livermore Laboratory Report UCRL-82841, Rev. 1, August 10, 1979, published in Proceedings of a Workshop on Thermomechanical Modeling for a Hardrock Waste Repository, Lawrence Livermore National Laboratory Report UCAR-10043, June 1979, an Offprint from UCAR-10043, also available as UCID-18502, January 1980.
- 17.* Test Storage of Spent Reactor Fuel in the Climax Granite at the Nevada Test Site, L. D. Ramspott and L. B. Ballou, published in "Waste Management '80: The State of Waste Disposal Technology, Mill Tailings, and Risk Analysis Models", Vol. 2, p. 515, University of Arizona, Tucson, AZ, March 1980, also available as Lawrence Livermore National Laboratory Report UCRL-83976, February 1980.
- 18.* Finite Element Calculations of Near-Field Transient Horizontal Temperature and Thermal Stress Distributions for the Climax Granite Nuclear Spent Fuel Storage Experiment, R. C. Greenlaw, Lawrence Livermore National Laboratory Report UCID-18840, March 1980.
- 19.* A Method for Calculating Internal Radiation and Ventilation with the ADINAT Heat-Flow Code, T. R. Butkovich and D. N. Montan, Lawrence Livermore National Laboratory Report UCRL-52918, April 1, 1980.
- 20.* Spent Fuel Handling System for a Geologic Storage Test at the Nevada Test Site, J. E. Duncan, P. A. House and G. W. Wright, published in Proceedings of American Nuclear Society Meeting, Las Vegas, NV, Transactions, Vol. 34, 1980, pp. 833-839, also available as Lawrence Livermore National Laboratory Report UCRL-83728, May, 1980.
- 21.* Seismic Hazard Analysis for the NTS Spent Reactor Fuel Test Site, K. W. Campbell, Tera Corp., submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15260, May 2, 1980.
- 22.* Stressmeter Placement at Spent Fuel Test in Climax Granite, A. E. Abey and H. R. Washington, Lawrence Livermore National Laboratory Report UCID-18629, May 20, 1980.

23. Mechanical and Thermomechanical Calculations Related to the Storage of Spent Nuclear Fuel Assemblies in Granite, T. R. Butkovich, Lawrence Livermore National Laboratory Report UCRL-52985, May 1980, superseded by UCRL-52985, Rev. 1, August 1981.
- 24.* Status of LLNL Granite Projects, L. D. Ramspott, published in Proceedings of ONWI/LBL Workshop on Thermomechanical-Hydrochemical Modeling for a Hardrock Waste Repository, Berkeley, CA, July 29-31, 1980, pp. 37-44, also available as Lawrence Livermore National Laboratory Report UCRL-84613, July 29, 1980.
- 25.* Response of Borehole Extensometers to Explosively Generated Dynamic Loads, W. C. Patrick and W. G. Brough, Lawrence Livermore National Laboratory Report UCRL-53087, August 25, 1980.
- 26.* Thermal Analysis for a Spent Reactor Fuel Storage Test in Granite, D. N. Montan, published in Proceedings of the International Symposium on the Scientific Basis for Nuclear Waste Management, Vol. 3, pp. 615-622, 1981, also available as Lawrence Livermore National Laboratory Report UCRL-83995, September 1980.
- 27.* Permeability Testing of Fractures in Climax Stock Granite, NTS, W. A. Murray, published in Proceedings of the Repository Sealing Field Testing Workshop 1980, Santa Fe, NM, DOE-ONWI-239, pg. 42, also available as Lawrence Livermore National Laboratory Report UCRL-85231, September 1980.
- 28.* The Spent Fuel Test Project, Climax Granitic Stock, Nevada Test Site, L. D. Ramspott, published in Proceedings of the International Symposium for Environmental Protection, Low-Cost Storage and Energy Savings (Rockstore 80), Stockholm, Sweden, also available as Lawrence Livermore National Laboratory Report UCRL-85078, October 1980.
- 29.* Field Testing at the Climax Stock on the Nevada Test Site: Spent-Fuel Test and Radionuclide Migration Experiments, L. B. Ballou, in the Proceedings of the 1980 National Waste Terminal Storage Meeting, Columbus, OH, 1980, also available as Lawrence Livermore National Laboratory Report UCRL-85047, October 1980.
- 30.* Program Plan: Field Radionuclide Migration Studies in Climax Granite, D. Isherwood, E. Raber, D. Coles and R. Stone, Lawrence Livermore National Laboratory Report UCID-18838, November 1, 1980.
- 31.* Geotechnical Status Report For Test Storage of Spent Reactor Fuel in Climax Granite, Nevada Test Site, D. G. Wilder and W. C. Patrick, published in "AEG Bulletin", Vol. XVIII, No. 4, pp. 355-367, 1981, also available as Lawrence Livermore National Laboratory Report UCRL-85096, November 1980.
- 32.* Spent Fuel Test-Climax: Technical Measurements Interim Report FY 1980, R. C. Carlson, W. C. Patrick, D. G. Wilder, W. G. Brough, D. N. Montan, P. E. Harben, L. B. Ballou and H. C. Heard, Lawrence Livermore National Laboratory Report UCRL-53064, December 1980.
- 33.* Thermal, Thermal-Elastic and Water Transport Behavior of Generic High Level Waste Repository Rocks, H. C. Heard, D. Trimmer, W. B. Durham, and A. Abey, presented at the Geologic Society of American Annual Meeting, Atlanta, GA, November 17-20, 1980, also available as Lawrence Livermore National Laboratory report UCRL-84404, December 1980.
- 34.* Status Report on the Spent Fuel Test-Climax: A Test of Geologic Storage of High-Level Waste in Granite, L. D. Ramspott, L. B. Ballou and W. C. Patrick, presented at the AIME 110th Annual Meeting, Chicago, IL, February 22, 1981, also available as Lawrence Livermore National Laboratory Report UCRL-85516, January 1981.

- 35.* Elastic Moduli, Thermal Expansion and Inferred Permeability of Two Grants to 350C and 55 MPa, H. C. Heard and L. Page, published in "Journal of Geophysical Research", Vol. 87, 1982, also available as Lawrence Livermore National Laboratory Report UCRL-86603, January 1981.
- 36.* The Climax Granite, Nevada Test Site, as a Host for a Rock Mechanics Test Facility Related to the Geologic Disposal of High-Level Nuclear Wastes, F. E. Heuze, Lawrence Livermore National Laboratory Report UCID-18946, February 1981.
- 37.* Geomechanics of the Climax 'Mine-By', Nevada Test Site, F. E. Heuze, published in Proceedings of the 22nd Symposium on Rock Mechanics Symposium, MIT, Cambridge, MA, June 29-July 2, 1981, pp. 428-434, also available as Lawrence Livermore National Laboratory Report UCRL-85768, March 1981.
- 38.* Elastic Moduli, Thermal Expansion and Inferred Permeability of Climax Quartz Monzonite and Sudbury Gabbro to 500C and 55 MPa, L. E. Page and H. C. Heard, published in the Proceedings of the 22nd U.S. Symposium on Rock Mechanics, MIT, Cambridge, MA, June 29-July 2, 1981, pp. 97-104, also available as Lawrence Livermore National Laboratory Report UCRL-85736, March 1981.
- 39.* In Situ Geomechanics, Climax Granite, Nevada Test Site, F. E. Heuze, W. C. Patrick, R. V. De la Cruz and C. F. Voss, Lawrence Livermore National Laboratory Report UCRL-53076, April 1981.
- 40.* Radiation Dose Calculations for Geologic Media Around Spent Fuel Emplacement Holes in the Climax Granite, Nevada Test Site, T. P. Wilcox and R. A. Van Konynenburg, Lawrence Livermore National Report UCRL-53159, May 27, 1981.
- 41.* Fracture Mapping at the Spent Fuel Test--Climax, D. G. Wilder and J. L. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53201, May 1981.
- 42.* Fracture Mapping for Radionuclide Migration Studies in Climax Granite, R. Thorpe and J. Springer, Lawrence Livermore National Laboratory Report UCID-19081, May 1981.
- 43.* Geohydrology of the Climax Stock Granite and the Surrounding Rock Formations, Nevada Test Site, W. A. Murray, Lawrence Livermore National Laboratory Report UCRL-53138, May 1981.
- 44.* An Analysis of the 'Mine-By' Experiment, Climax Granite, Nevada Test Site, F. E. Heuze, T. R. Butkovich and J. C. Peterson, Lawrence Livermore National Laboratory Report UCRL-53133, June 1981.
- 45.* Field Testing at the Climax Stock on the Nevada Test Site: Spent Fuel Test and Radionuclide Migration Experiments, L. B. Ballou, D. J. Isherwood and W. C. Patrick, published in Office of Nuclear Waste Isolation annual publication, "The Technology of High-Level Nuclear Waste Disposal, Advances in the Science and Technology of the Management of High-Level Nuclear Waste", Oak Ridge, TN, 1981, DOE/TIC-4621, Vol. 2, pp. 53-75, also available as Lawrence Livermore National Laboratory Report UCID-19073, June 1981.
- 46.* Site Characterization for Field Radionuclide Migration Studies in Climax Granite, D. Isherwood, E. Raber, R. Stone and S. V. Topp, Editor, published in "Scientific Basis for Nuclear Waste Management", Vol. 6, pp. 199-206, 1982, also available as Lawrence Livermore National Laboratory Report UCRL-86194, June 1981.
- 47.* The Effect of Pressure and Temperature on the Thermal Properties of a Salt and a Quartz Monzonite, W. B. Durham and A. E. Abey, published in the Proceedings of the 22nd U.S. Symposium on Rock Mechanics, Cambridge, MA, June 29-July 2, 1981, pp. 79-84, also available as Lawrence Livermore National Laboratory Report UCRL-85285, June 1981.

- 48.* Mechanical and Thermomechanical Calculations Related to the Storage of Spent Nuclear Fuel Assemblies in Granite (Revision 1), T. R. Butkovich, Lawrence Livermore National Laboratory Report UCRL-52985, Rev. 1, August 1981.
- 49.* Near-Field Heat Transfer at the Spent Fuel Test--Climax: A Comparison of Measurements and Calculations, W. C. Patrick, D. N. Montan and L. B. Ballou, published in Proceedings of the OECD Nuclear Energy Agency Workshop in Near-Field Phenomena in Geologic Repositories, pp. 147-160, September 1981, also available as Lawrence Livermore National Laboratory Report UCRL-86043, August 1981.
- 50.* Thermal Properties of Rock Salt and Quartz Monzonite to 573 K and 50 MPa Confining Pressure, W. B. Durham and A. E. Abey, presented at the 20th ASME-AIChE National Heat Transfer Conference, Milwaukee, WI, August 2-5, 1981, also available as Lawrence Livermore National Laboratory Report UCRL-85191, August 1981.
- 51.* Tape Extensometer Sensitivity and Reliability, J. L. Yow, Jr. and D. G. Wilder, presented at 24th Annual Meeting of the Association of Engineering Geologists, Portland, OR, September 27- October 2, 1981, also available as Lawrence Livermore National Laboratory Report UCRL-86100, September 1981.
- 52.* Sources of Compass Error in Tunnel Mapping, J. L. Yow, Jr., published in "Association of Engineering Geologists Bulletin", Vol. 19, #2, pp. 133-140, May 1982, also available as Lawrence Livermore National Laboratory Report UCRL-86749, September 1981.
- 53.* Thermoluminescence for Self Dosimetry in Climax Stock Quartz Monzonite, R. C. Carlson, published in "Nuclear Technology", Vol. 60, pp. 244-252, February 1983, also available as Lawrence Livermore National Laboratory Report UCRL-86627, September 1981.
- 54.* As-Built Mechanical and Thermomechanical Calculations of a Spent Fuel Test in Climax Stock Granite, T. R. Butkovich, Lawrence Livermore National Laboratory Report UCRL-53198, September 1981.
- 55.* Thermal Calculations for the Design, Construction, Operation, and Evaluation of the Spent Fuel Test--Climax, Nevada Test Site, D. N. Montan and W. C. Patrick, Lawrence Livermore National Laboratory Report UCRL-53238, September 1981.
- 56.* Calibration Characteristics of IRAD Gage Vibrating Wire Stressmeter at Normal and High Temperature. Vol. 1 & Vol. 2, P. Dutta, R. Hatfield and P. Runstadler, Jr., IRAD Gage, Creare Products, Inc., Contractor Technical Report 80-2, submitted to Lawrence Livermore National Laboratory under subcontract, October 1981, also available as Lawrence Livermore National Laboratory Report UCRL-15426, October 1981.
- 57.* Climax Spent Fuel Dosimetry - Progress Report, September 1980 - September 1981, W. Quam and T. DeVore, EG&G, Santa Barbara, CA, EG&G 1183-2432, SANL 909-034, submitted to Lawrence Livermore National Laboratory under subcontract, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15419, October 1981.
- 58.* Preliminary Report on Radiation-Induced Thermoluminescence in Climax Stock Quartz Monzonite, R. C. Carlson, L. E. Page, L. Koons and C. Sundbeck, Lawrence Livermore National Laboratory Report UCID-19229, October 1981.
- 59.* Excavation and Drilling Activities Associated with a Spent Fuel Test Facility in Granitic Rock, W. C. Patrick and M. C. Mayr, Lawrence Livermore National Laboratory Report UCRL-53227, November 1981.

- 60.* Instrumentation Report #2: Identification, Evaluation, and Remedial Actions Related to Transducer Failures at the Spent Fuel Test--Climax, W. C. Patrick, R. C. Carlson and N. L. Rector, Lawrence Livermore National Laboratory Report UCRL-53251, November 1981.
- 61.* Rock Mechanics Studies of Mining in the Climax Granite, F. E. Heuze, W. C. Patrick, T. R. Butkovich, J. C. Peterson, R. V. De la Cruz and C. F. Voss, published in "International Journal Rock Mechanics and Mining Sciences", Vol. 19, pp. 167-183, 1982, also available as Lawrence Livermore National Laboratory Report UCRL-86968, November 1981.
- 62.* Thermal Conductivity and Diffusivity of Climax Stock Quartz Monzonite at High Pressure and Temperature, W. B. Durham, A. E. Abey and J. Hust, Editor, published in "Thermal Conductivity", Vol. 17, Proceedings of the 17th International Thermal Conductivity Conference, pp. 459-468, 1983, Gaithersburg, MD, June 15-19, 1981, also available as Lawrence Livermore National Laboratory Report UCRL-86619, Rev. 1, November 1981.
- 63.* Scoping Analysis for Radionuclide Migration Test, F. A. Morrison, Jr., Lawrence Livermore National Laboratory Report UCID-19369, January 1982.
- 64.* Instrumentation Report #1: Specification, Design, Calibration, and Installation of Instrumentation for an Experimental, High-Level, Nuclear Waste Storage Facility, W. G. Brough and W. C. Patrick, Lawrence Livermore National Laboratory Report UCRL-53248, January 1982.
- 65.* Laboratory Measurements of Ultra-Low Permeability Geologic Materials, D. A. Trimmer, published in "Revue of Scientific Instrumentation", Vol. 53, pp. 1246-1254, 1982, also available as Lawrence Livermore National Laboratory Report UCRL-86722, January 1982.
- 66.* Borehole Collector for In Situ Chemical Analysis of Ground Water, J. Harrar and E. Raber, published in "Ground Water Journal", July-August 1982, Vol. 20, No. 4, pp. 479-481, also available as Lawrence Livermore National Laboratory Report UCRL-87252, February 1982.
- 67.* Status Report on the Spent Fuel Test-Climax, NTS: A Test of Dry Storage of Spent Fuel in a Deep Granite Location, L. D. Ramspott, L. B. Ballou, W. C. Patrick, R. G. Post and M. E. Wacks, Editor, published in "Waste Management 1982", Vol. 3, pp. 131-139, also available as Lawrence Livermore National Laboratory Report UCRL-87448, March 1982.
68. The Sorption of Selected Radionuclides on Various Metal and Polymeric Materials, E. Raber and J. Garrison, published in "Radioactive Waste Management Journal", Vol. 4 (1), pp. 41-52, September 1983, also available as Lawrence Livermore National Laboratory Report UCRL-87653, March 1982.
- 69.* The Effect of Gamma Irradiation on the Strength of Climax Stock Quartz Monzonite, W. B. Durham, Lawrence Livermore National Laboratory Report UCRL-87475, March 1982.
- 70.* Calculated and Measured Drift Closure During the Spent Fuel Test in Climax Granite, J. L. Yow, Jr. and T. R. Butkovich, published in Proceedings of the 23rd U.S. Symposium on Rock Mechanics, University of California, Berkeley, CA, August 25-27, 1982, Chap. 86, pp. 855-863, 1982, also available as Lawrence Livermore National Laboratory Report UCRL-87179, April 1982.
- 71.* Spent Fuel Test-Climax: Technical Measurements Interim Report Fiscal Year 1981, W. Patrick, L. Ballou, T. Butkovich, R. Carlson, W. Durham, G. Hage, E. Majer, D. Montan, R. Nyholm, N. Rector, D. Wilder and J. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53294, April 1982.

72. Leach Testing of Waste Forms--Interrelationship of ISO and MCC Type Tests, V. Oversby, published in "Workshop on Leaching Mechanisms of Nuclear Waste Forms", May 19-21, 1982, PNL-4382, pp. 97-129, also available as Lawrence Livermore National Laboratory Report UCRL-87621, May 1982.
- 73*. Hydrologic Test System for Fracture Flow Studies in Crystalline Rock, E. Raber, D. Lord and P. W. Burklund, published in "Ground Water", Vol. 22, #4, pp. 468-473, July-August 1984, also available as Lawrence Livermore National Laboratory Report UCID-19405, May 1982.
- 74.* Core Logging for Site Investigation and Instrumentation, Spent Fuel Test-Climax, D. Wilder, J. Yow, Jr. and R. Thorpe, Lawrence Livermore National Laboratory Report UCID-19646, May 1982.
- 75.* Laboratory Studies of Radionuclide Transport in Fractured Climax Granite, R. Failor, D. Isherwood, E. Raber and T. Vandergraaf, Lawrence Livermore National Laboratory Report UCRL-53308, June 1982.
- 76.* Spent Fuel Test--Climax Data Acquisition System Integration Report, R. Nyholm, W. Brough and N. Rector, Lawrence Livermore National Laboratory Report UCRL-53304, June 1982.
- 77.* Engineering Test Plan for Field Radionuclide Migration Experiments in Climax Granite, D. Isherwood, E. Raber, R. Stone, D. Lord, N. Rector and R. Failor, Lawrence Livermore National Laboratory Report UCRL-53286, June 1982.
- 78.* Characterization of Climax Granite Ground Water, D. Isherwood, J. Harrar and E. Raber, Lawrence Livermore National Laboratory Report UCRL-53309, August 1982.
- 79.* Climax Spent Fuel Dosimetry - Progress Report, September 1981 - September 1982, W. Quam and T. DeVore, EG&G, Santa Barbara, CA, EG&G 1183-2455, SANL 909-034, submitted to Lawrence Livermore National Laboratory under subcontract, available as Lawrence Livermore National Laboratory Contractor Report UCRL-15419-1, August 1982.
- 80.* Influence of Heat Flow on Drift Closure During Climax Granite Spent Fuel Test: Measurements and Calculations, T. R. Butkovich, J. L. Yow, Jr. and D. N. Montan, published in Proceedings of the International Conference on Radioactive Waste Management, Winnipeg, Manitoba, Canada, September 12-15, 1982, pp. 131-135, also available as Lawrence Livermore National Laboratory Report UCRL-87248, September 8, 1982.
- 81.* The Spent Fuel Test-Climax: A Progress Report, W. C. Patrick and L. B. Ballou, published in Proceedings of the NWTS Program Information Meeting, Las Vegas, NV, December 14-16, 1982, DOE/NWTS-30, pp. 101-104, also available as Lawrence Livermore National Laboratory Report UCRL-88174, September 20, 1982.
82. Development of Waste Packages for Tuff, A. J. Rothman, published in Proceedings of the NWTS Program Information Meeting, Las Vegas, NV, December 14-16, 1982, DOE/NWTS-30, pp. 119-122, also available as Lawrence Livermore National Laboratory Report UCRL-88175, September 20, 1982.
83. Laboratory Measurements of Ultra-Low Permeability Geologic Materials, D. A. Trimmer, published in "Review of Scientific Instruments", Vol. 53, pp. 1246-1254, August 1982, also available as Lawrence Livermore National Laboratory Report UCRL-86722, September 1982.
- 84.* Test Completion Plan for Spent Fuel Test-Climax, Nevada Test Site, L. Ballou, W. Patrick, D. Montan and T. Butkovich, Lawrence Livermore National Laboratory Report UCRL-53367, September 1982.

- 85.* Comparison of Measured and Calculated Radiation Doses in Granite Around Emplacement Holes in the Spent Fuel Test-Climax Nevada Test Site. R. Van Konynenburg, Lawrence Livermore National Laboratory Report UCRL-53341, October 1982.
- 86.* Thermal Properties of Climax Stock Quartz Monzonite to 523 K and 50-MPa Confining Pressure. W. Durham, Lawrence Livermore National Laboratory Report UCRL-53349, October 1982.
- 87.* Experimental and Calculational Results from the Spent Fuel Test-Climax, W. C. Patrick, L. D. Ramsdott and L. B. Ballou, presented at the OECD Nuclear Energy Agency - Stripa 1982: In Situ Experiments in Granite Associated with Geological Disposal of Radioactive Waste, October 25-27, 1982, Stockholm, Sweden, also available as Lawrence Livermore National Laboratory Report UCRL-88254, October 1982.
- 88.* The Effects of Boundary Conditions on Thermomechanical Calculations: Spent Fuel Test-Climax, T. Butkovich, Lawrence Livermore National Laboratory Report UCRL-53338, October 1982.
- 89.* Drilling-Induced Borehole-Wall Damage at Spent Fuel Test-Climax, H. Weed and W. Durham, Lawrence Livermore National Laboratory Report UCID-19672, December 1982.
- 90.* Spent Fuel Test-Climax Data Acquisition System Operations Manual, R. A. Nyholm, Lawrence Livermore National Laboratory Report UCID-19834, January 1983.
- 91.* Handling Encapsulated Spent Fuel in a Geologic Repository Environment, L. Ballou, published in "Radioactive Waste Management", Vol. 3, IAEA-CN-43/223, International Atomic Energy Agency, Vienna, Austria 1984, pp. 463-472, also available as Lawrence Livermore National Laboratory Report UCRL-87872, February 1983.
92. Design of a Nuclear Waste Package for Emplacement in Tuff, W. C. O'Neal, A. J. Rothman, D. W. Gregg, J. N. Hockman, M. A. Revelli, E. W. Russell and J. R. Schornhorst, published in Proceedings of the ANS/ASME Waste Management '83 Meeting in Tucson, AZ, February 27-March 3, 1983, Vol. 2, pp. 3-9, also available as Lawrence Livermore National Laboratory Report UCRL-88192, February 1983.
- 93.* Spent Fuel Test-Climax Technical Measurements Interim Report FY82, W. Patrick, L. Ballou, T. Butkovich, R. Carlson, W. Durham, G. Hage, E. Majer, D. Montan, R. Nyholm, N. Rector, D. Wilder and J. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53294-82, February 1983.
- 94.* BREAD. A CDC 7600 Program That Processes Spent Fuel Test-Climax Data, G. L. Hage, Lawrence Livermore National Laboratory Report UCID-19814, April 1983.
95. EO3NR. A Computer Program for Geochemical Aqueous Speciation-Solubility Calculations: Users Guide and Documentation, T. Wolery, Lawrence Livermore National Laboratory Report UCRL-53414, April 1983.
- 96.* Planning Exploratory Drilling: The Effect of Blind Zones and Level of Logging Effort, J. L. Yow, Jr. and D. G. Wilder, published in Proceedings of the 24th Symposium on Rock Mechanics at Texas A&M University, June 20, 1983, pp. 807-812, also available as Lawrence Livermore National Laboratory Report UCRL-88374, June 1983.
- 97.* Reliability of Instrumentation in a Simulated Nuclear-Waste Repository Environment, W. C. Patrick, N. L. Rector and K. Kovari, Editor, published in Proceedings of the International Symposium on Field Measurements in Geomechanics, Zurich, Switzerland, September 5-8, 1983, pp. 1431-1440, also available as Lawrence Livermore National Laboratory Report UCRL-88806, June 1983.

98. Permeability and Pore-Fluid Chemistry of the Bullfrog Tuff in a Temperature Gradient: Summary of Results, J. Byerlee, C. Morrow and D. Moore, U.S. Geological Survey Open-File Report 83-475, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15790, June 1983.
99. Reaction of Bullfrog Tuff with J-13 Well Water at 90°C and 150°C, V. M. Oversby and K. G. Knauss, Lawrence Livermore National Laboratory Report UCRL-53442, September 15, 1983.
100. Initial Specifications for Nuclear Waste Package External Dimensions and Materials, D. W. Gregg and W. C. O'Neal, Lawrence Livermore National Laboratory Report UCID-19926, September 1983.
101. Petrologic and Geochemical Characterization of the Bullfrog Member of the Crater Flat Tuff: Outcrop Samples Used in Waste Package Experiments, K. G. Knauss, Lawrence Livermore National Laboratory Report UCRL-53470, September 1983.
102. Containment Barrier Metals for High-Level Waste Packages in a Tuff Repository, E. W. Russell, R. D. McCright and W. C. O'Neal, Lawrence Livermore National Laboratory Report UCRL-53449, October 12, 1983.
103. Uncertainty Analysis: An Illustration from Nuclear Waste Package Development, W. G. Sutcliffe, published in "Nuclear and Chemical Waste Management Journal", Vol. 5, pp. 131-140, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90042, October 1983.
104. Selection of Barrier Metals for a Waste Package in Tuff, E. W. Russell, R. D. McCright and W. C. O'Neal, published in Proceedings of the Materials Research Society Meeting, Vol. 26, pp. 763-772, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-89404, Rev. 1, October 1983.
105. The Characteristics of Spent LWR Fuel Relevant to its Storage in Geologic Repositories, R. E. Woodley, Hanford Engineering Development Laboratory, HEDL TME 83-28, submitted to Lawrence Livermore National Laboratory under subcontract, October 1983.
106. Post Emplacement Environment of Waste Packages, K. G. Knauss, V. M. Oversby and T. J. Wolery, published in Proceedings of the Materials Research Society Meeting, Symposium Proc., Vol. 26, pp. 301-308, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-89475, November 1983.
107. The NNWSI Waste Form Test Program, V. M. Oversby, published in Proceedings of the Materials Research Society Meeting, Vol. 26, pp. 319-327, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-89477, November 1983.
108. Permeability and Pore-Fluid Chemistry of the Topopah Spring Member of the Paintbrush Tuff, Nevada Test Site, in a Temperature Gradient: Application to Nuclear Waste Storage, C. A. Morrow, D. E. Moore and J. D. Byerlee, published in Proceedings of the Materials Research Society Symposium, Boston, MA, Vol. 26, pp. 883-890, 1984, November 1983.
109. Corrosion Test Plan to Guide Canister Material Selection and Design for a Tuff Repository, R. D. McCright, R. A. Van Konynenburg and L. B. Ballou, published in Proceedings of the Materials Research Society Meeting, Vol. 26, pp. 309-318, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-89476, November 1983.
110. Selection of Candidate Canister Materials for High-Level Nuclear Waste Containment in a Tuff Repository, R. D. McCright, H. Weiss, M. C. Juhas and R. W. Logan, presented at Corrosion/84 Conference, National Association of Corrosion Engineers, Houston, TX, April 1984, paper #198, also available as Lawrence Livermore National Laboratory Report UCRL-89988, November 1983.

111. Performance Testing of Waste Forms in a Tuff Environment, V. M. Oversby, published in Proceedings of the Civilian Radioactive Waste Management Information Meeting, Washington, DC, December 12-15, 1983, CONF. 831217, pp. 270-279, also available as Lawrence Livermore National Laboratory Report UCRL-90045, November 1983.
112. Waste Package for a Repository Located in Tuff, L. B. Ballou, published in Proceedings of the Civilian Radioactive Waste Management Information Meeting, Washington, D.C., December 12-15, 1983, CONF. 831217, pp. 265-269, also available as Lawrence Livermore National Laboratory Report UCRL-90044, November 1983.
- 113.* Radiation Dosimetry and Monitoring for a Test of Geologic Storage of Spent Nuclear Fuel, K. E. Raschke, W. C. Patrick, T. C. Roy and T. Straume, Lawrence Livermore National Laboratory Report UCRL-53498, November 1983.
114. Test Plan for Spent Fuel Cladding Containment Credit Tests, C. N. Wilson, Hanford Engineering Development Laboratory, HEDL TC-2353-2, submitted to Lawrence Livermore National Laboratory under subcontract, November 1983.
115. Nuclear Criticality Safety Analysis of a Spent Fuel Waste Package in a Tuff Repository, B. H. Weren, M. A. Capo and W. C. O'Neal, Westinghouse Electric Corporation, Waste Technology Services Division, Pittsburgh, PA, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15575, December 1983.
- 116.* Mineralogic and Petrologic Investigation of Pre-Test Core Samples from the Spent Fuel Test-Climax, F. J. Ryerson and B. J. Qualheim, Lawrence Livermore National Laboratory Report UCID-19976, December 1983.
117. An Overview of Low Temperature Sensitization, M. J. Fox and R. D. McCright, Lawrence Livermore National Laboratory Contractor Report UCRL-15619, December 1983.
- 118.* A Rapid Technique for Counting Cracks in Granitic Rocks, W. B. Durham, J. M. Beiriger and H. C. Weed, published in "Scanning Electron Microscopy", I-1985, pp. 133-142, also available as Lawrence Livermore National Laboratory Report UCRL-90257, January 1984.
- 119.* SEM Studies of Stressed and Irradiated Climax Stock Quartz Monzonite, J. Beiriger and W. Durham, Lawrence Livermore National Laboratory Report UCID-20052, February 1984.
120. Nuclear Waste Package Design for the Vadose Zone in Tuff, W. C. O'Neal, L. B. Ballou, D. W. Gregg and E. W. Russell, published in Proceedings of the ANS/ASME Waste Management '84 Meeting, Tucson, AZ, March 11-15, 1984, Vol. 1, pp. 547-551, also available as Lawrence Livermore National Laboratory Report UCRL-89830, February 1984.
121. Thermal Modeling of Nuclear Waste Package Designs for Disposal in Tuff, J. N. Hockman and W. C. O'Neal, published in Proceedings of the ANS/ASME Waste Management '84 Meeting, Tucson, AZ, March 11-15, 1984, Vol. 1, pp. 441-448, also available as Lawrence Livermore National Laboratory Report UCRL-89820, Rev. 1, February 1984.
122. Spent Fuel Cladding Containment Credit Tests, C. N. Wilson and V. M. Oversby, published in Proceedings of the ANS/ASME Waste Management '84 Meeting, Tucson, AZ, March 11-15, 1984, Vol. 1, pp. 569-572, also available as Lawrence Livermore National Laboratory Report UCRL-89869, February 1984.

- 123.* Spent Fuel Test-Climax Technical Measurements Interim Report FY83, W. C. Patrick, T. R. Butkovich, R. C. Carlson, W. B. Durham, H. C. Ganow, G. L. Hage, E. L. Majer, D. N. Montan, R. A. Nyholm, N. L. Rector, F. J. Ryerson, H. Weiss and J. L. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53294-83, February 1984.
124. Hydrothermal Interaction Studies of Bullfrog Member Tuff Core Wafers in J-13 Water at 150°C Quantitative Analyses of Aqueous and Solid Phases, K. Knauss, Lawrence Livermore National Laboratory Report UCRL-53521, February 1984.
- 125.* The Application of Proving-Ring Technology to Measure Thermally Induced Displacements in Large Boreholes in Rock, W. C. Patrick, N. L. Rector and T. R. Butkovich, published in Proceedings of the 5th International Congress on Experimental Mechanics, Montreal, Quebec, Canada, June 10-14, 1984, pp. 189-196, also available as Lawrence Livermore National Laboratory Report UCRL-88933, March 1984.
126. Reference Waste Forms and Packing Material for the Nevada Nuclear Waste Storage Investigations Project, V. M. Oversby, Lawrence Livermore National Laboratory Report UCRL-53531, April 1984.
127. EO3/6 Geochemical Modeling Task Plan for Nevada Nuclear Waste Storage Investigations (NNWSI), D. Isherwood and T. Wolery, Lawrence Livermore National Laboratory Report UCID-20069, April 1984.
128. Thermal Analysis of NNWSI Conceptual Waste Package Designs, W. Stein, J. Hockman and W. O'Neal, Lawrence Livermore National Laboratory Report UCID-20091, April 1984.
- 129.* Acoustic Emission and Wave Propagation Monitoring at the Spent Fuel Test - Climax, Nevada, E. L. Majer and T. V. McEvilly, published in "International Journal Rock Mechanics Mining Science and Geomechanics Abstract", Vol. 22, No. 4, pp. 215-226, 1985, also available as LBL-17546, April 1984.
- 130.* In-Situ Stress Measurements at the Spent Fuel Test-Climax Facility, J. B. Creveling, F. S. Shuri, K. M. Foster and S. V. Mills, Foundation Sciences, Inc., submitted to Lawrence Livermore National Laboratory under subcontract, available as Lawrence Livermore National Laboratory Contractor Report UCRL-15628, May 1984.
131. Overview of Geochemical Modeling Needs for Nuclear Waste Management, D. Isherwood and T. Wolery, published in Proceedings of the Workshop on Fundamental Geochemistry Needs for Nuclear Waste Isolation, Los Alamos, NM, pp. 183-191, June 20-22, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90846, May 1984.
132. Hydrothermal Interaction of Topopah Spring Tuff w/J-13 Water as a Function of Temperature, K. Knauss, J. Delany, J. Beiriger and D. Peifer, published in Proceedings of the Materials Research Society Meeting, Boston, MA, Vol. 44, pp. 539-546, November 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90853, May 1984.
133. Reaction of the Topopah Spring Tuff with J-13 Well Water at 90°C and 150°C, V. Oversby, Lawrence Livermore National Laboratory Report UCRL-53552, May 1984.
134. Petrologic & Geochemical Characterization of the Topopah Spring Member of the Paintbrush Tuff: Outcrop Samples Used in Waste Package Experiments, K. Knauss, Lawrence Livermore National Laboratory Report UCRL-53558, June 1984.
135. Electrochemical Determination of the Corrosion Behavior of Candidate Alloys Proposed for Containment of High Level Nuclear Waste in Tuff, R. S. Glass, G. E. Overturf, R. E. Garrison and R. D. McCright, Lawrence Livermore National Laboratory Report UCID-20174, June 1984.

- 136.* Climax Spent Fuel Dosimetry Progress Report Sept. 82-Jan. 84, W. Quam and T. DeVore, EG&G, Goleta, CA, EGG 10282-2042, submitted to Lawrence Livermore National Laboratory under subcontract, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15419-2, June 1984.
- 137.* Climax Spent Fuel Dosimetry, Short Term Exposure, W. Quam and T. DeVore, EG&G, Goleta, CA, EGG 10282-2041, submitted to Lawrence Livermore National Laboratory under subcontract, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15419-3, June 1984.
- 138.* An Analysis of Fracturing in Hole UG2, SFT-C, R. Thorpe, Lawrence Livermore National Laboratory Report UCID-20130, June 1984.
139. Changes in Permeability and Fluid Chemistry of the Topopah Spring Member of the Paintbrush Tuff (NTS) When Held in a Temperature Gradient: Summary of Results, D. E. Moore, C. A. Morrow and J. D. Byerlee, USGS, USGS Open-File 84-273, submitted to Lawrence Livermore National Laboratory under subcontract, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15620, June 1984.
140. Reaction of the Topopah Spring Tuff with J-13 Water at 120°C, V. Oversby, Lawrence Livermore National Laboratory Report UCRL-53574, July 1984.
- 141.* Radiation Doses in Granite Around Emplacement Holes in the SFT-C, R. Van Konynenburg, Lawrence Livermore National Laboratory Report UCRL-53580, July 1984.
- 142.* Measurement of Displacement in Large Boreholes with a Stain Gauged Proving Ring, W. C. Patrick and N. L. Rector, published in "Experimental Techniques", Vol. 9, No. 2, also available as Lawrence Livermore National Laboratory Report UCRL-91360, July 1984.
143. Effects of Tuff Waste Package Components on Release From 76-68 Simulated Waste Glass, G. L. McVay and G. R. Robinson, Pacific Northwest Laboratory, PNL-4897, submitted to Lawrence Livermore National Laboratory under subcontract, August 1984.
144. Report on Static Hydrothermal Alteration Studies of Topopah Spring Tuff Core Wafers in J-13 Water at 150°C, K. Knauss and J. Beiriger, Lawrence Livermore National Laboratory Report UCRL-53576, August 1984.
145. NNWSI Interim Acceptance Specifications for Defense Waste Processing Facility and West Valley Demonstration Project Waste Forms and Canisterized Waste, V. Oversby, Lawrence Livermore National Laboratory Report UCID-20165, August 1984.
146. Potential Corrosion and Degradation Mechanisms of Zircaloy Cladding on Spent Nuclear Fuel in a Tuff Repository, A. Rothman, Lawrence Livermore National Laboratory Report UCID-20172, September 1984.
- 147.* Overcoring and Calibration of IRAD Gage Stressmeters at the Spent Fuel Test in Climax Granite, N. Mao, Lawrence Livermore National Laboratory Report UCID-20318, September 1984.
- 148.* Petite Sismique Measurements at the Spent Fuel Test-Climax, J. J. Zucca, Lawrence Livermore National Laboratory Report UCRL-53597, September 1984.
- 149.* A User's Guide to REVERT: A CDC 7600 Program for Converting SFT-C Data to Engineering Units, with Corrections, G. Hage, Lawrence Livermore National Laboratory Report UCID-30206, October 1984.

150. Corrosion Behavior of Carbon Steels Under Tuff Repository Environmental Conditions, D. McCright and H. Weiss, published in Proceedings of the Materials Research Society Meeting, Vol. 44, pp. 287-294, Boston, MA, November 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90875, October 1984.
151. Test Plan for Series 2 Spent Fuel Cladding Containment Credit Tests, C. N. Wilson, Hanford Engineering Development Laboratory, HEDL-TC-2353-3, submitted to Lawrence Livermore National Laboratory under subcontract, October 1984.
152. Transport Properties of Topopah Spring Tuff, W. Lin and W. Daily, Lawrence Livermore National Laboratory Report UCRL-53602, October 1984.
- 153.* Heater Test No. 1, Climax Stock Granite, Nevada, D. Montan and W. Bradkin, Lawrence Livermore National Laboratory Report UCRL-53496, October 1984.
- 154.* Structural Geology Report, Spent Fuel Test-Climax, D. Wilder and J. L. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53381, October 1984.
155. Pre-closure Analysis of Conceptual Waste Package Designs for a Nuclear Waste Repository in Tuff, W. O'Neal, D. Gregg, J. Hockman, E. Russell and W. Stein, Lawrence Livermore National Laboratory Report UCRL-53595, November 1984.
156. Leaching Savannah River Plant Nuclear Waste Glass in a Saturated Tuff Environment, N. Bibler, G. Wicks and V. Oversby, published in Proceedings of the Materials Research Society Meeting, Vol. 44, pp. 247-256, Boston, MA, November 1984, also available as Lawrence Livermore National Laboratory Report UCRL-91258, November 1984.
157. The Behavior of Actinide Containing Glasses During Gamma Irradiation in a Saturated Tuff Environment, J. Bates and V. Oversby, published in Proceedings of the Material Research Society Meeting, Vol. 44, pp. 257-264, Boston, MA, November 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90818, November 1984.
158. Behavior of Stressed and Unstressed 304L Specimens in Tuff Repository Environmental Conditions, M. Juhas, D. McCright and W. Garrison, published in Proceedings of Corrosion 85, Boston, MA, March 25-29, 1985, paper #117, also available as Lawrence Livermore National Laboratory Report UCRL-91804, November 1984.
159. NNWSI Waste Form Performance Test Development, J. K. Bates and T. J. Gerding, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Meeting, Vol. 44, pp. 295-302, Boston, MA, November 1984.
160. Behavior of Carbon-14 in Waste Packages for Spent Fuel in a Repository in Tuff, R. A. Van Konynenburg, C. F. Smith, H. W. Culham and C. H. Otto, published in Proceedings of the Materials Research Society Meeting, Vol. 44, pp. 405-412, Boston, MA, November 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90855, Rev. 1, November 1984.
161. Laboratory Experiments Designed to Provide Limits on the Radionuclide Source Term for the NNWSI Project, V. M. Oversby and R. D. McCright, published in Proceedings of the Workshop on the Source Term for Radionuclide Migration from HLW or Spent Nuclear Fuel, Albuquerque, NM, November 13-15, 1984, SAND85-0380, Hunter and Muller, Editors, pp. 175-186, also available as Lawrence Livermore National Laboratory Report UCRL-91257, November 1984.
- 162.* Geologic Structure Mapping Database Spent Fuel Test--Climax Nevada Test Site, J. L. Yow, Jr., Lawrence Livermore National Laboratory Report UCID-20301, December 1984.

163. Preliminary Evaluation of Alterant Geophysical Tomography in Welded Tuff, A. Ramirez and W. Daily, Lawrence Livermore National Laboratory Report UCID-20289, December 1984.
164. EO3/6: Status and Applications, T. J. Wolery, D. J. Isherwood, K. J. Jackson, J. M. Delany, I. Puigdomenech and G. K. Jacobs and S. K. Whatley, Editors, published in Proceedings of the Conference on the Application of Geochemical Models to High-Level Nuclear Waste Repository Assessment, Oak Ridge, TN, October 2-5, 1984, NUREG/CP-0062, ORNL/TM-9285, pp. 54-65, 1985, also available as Lawrence Livermore National Laboratory Report UCRL-91884, December 1984.
- 165.* Instrumentation Report No. 3: Performance and Reliability of Instrumentation Deployed for the Spent Fuel Test-Climax, W. C. Patrick, N. L. Rector and J. J. Scarafiotti, Lawrence Livermore National Laboratory Report UCRL-53637, December 1984.
166. Fixed Fugacity Option for the EO6 Geochemical Reaction Path Code, J. Delany and T. Wolery, Lawrence Livermore National Laboratory Report UCRL-53598, December 1984.
167. Spent Fuel Cladding Characteristics and Choice of Experimental Specimens for Cladding-Corrosion Evaluation Under Tuff Repository Conditions, H. D. Smith, Hanford Engineering Development Laboratory, HEDL-TC-2530, submitted to Lawrence Livermore National Laboratory under subcontract, January 1985.
168. Parametric Testing of a DWPF Borosilicate Glass, F. Bazan and J. Rego, published in Proceedings of the Materials Research Society Meeting, Vol. 44, pp. 303-310, Boston, MA, 1984, also available as Lawrence Livermore National Laboratory Report UCRL-90857, January 1985.
169. NNWSI Phase II Materials Interaction Test Procedure and Preliminary Results, J. K. Bates and T. J. Gerding, Argonne National Laboratory, Argonne National Laboratory ANL-84-81, submitted to Lawrence Livermore National Laboratory under subcontract, January 1985.
- 170.* Radiation Safety Considerations for a Test of Deep Geologic Storage of Spent Nuclear Fuel, K. Raschke and T. Straume, published in "Nuclear Science and Engineering", Vol. 94, No. 3, pp. 282-286, November 1986, also available as Lawrence Livermore National Laboratory Report UCRL-92003, January 1985.
- 171.* Operational and Technical Results from the Spent Fuel Test-Climax, W. C. Patrick, published in "Journal of Environmental Sciences", pp. 51-54, January/February 1986, also available as Lawrence Livermore National Laboratory Report UCRL-92065, January 1985.
- 172.* Physical and Chemical Changes to Rock Near Electrically Heated Boreholes at Spent Fuel Test-Climax, J. Beiriger, W. Durham and R. Ryerson, Lawrence Livermore National Laboratory Report UCID-20412, January 1985.
- 173.* Observations of Borehole Deformation Modulus Values Before and After Extensive Heating of a Granitic Rock Mass, W. C. Patrick, J. L. Yow, Jr. and M. C. Axelrod, published in Proceedings of the U.S. Symposium on Rock Mechanics, Rapid City, SD, pp. 851-858, June 26-28, 1985, also available as Lawrence Livermore National Laboratory Report UCRL-91468, February 1985.
- 174.* Logging of Post-Test and CCH Record Core Samples for the Spent Fuel Test-Climax, R. Thorpe and B. Qualheim, Lawrence Livermore National Laboratory Report UCID-20351, February 1985.
175. Preliminary Evaluation of Alterant Geotomography in Welded Tuff, A. Ramirez and W. Daily, published in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, SD, pp. 807-816, June 26-28, 1985, also available as Lawrence Livermore National Laboratory Report UCRL-92229, February 1985.

176. Gamma Radiation Effects on Corrosion: Electrochemical Mechanisms for the Aqueous Corrosion Processes of Austenitic Stainless Steels, R. S. Glass, G. E. Overturf III, R. A. Van Konynenburg and R. D. McCright, published in "Corrosion Science," Vol. 26, No. 8, pp. 577-590, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-92311, February 1985.
- 177.* Mineralogic and Petrologic Investigation of Post-Test Core Samples from the Spent Fuel Test-Climax, F. Ryerson and J. Beiriger, Lawrence Livermore National Laboratory Report UCRL-53625, February 1985.
178. Parametric Testing of a DWPF Glass, F. Bazan and J. Rego, Lawrence Livermore National Laboratory Report UCRL-53606, March 1985.
179. Zircaloy Spent Fuel Cladding Electrochemical Corrosion Scoping Experiment, H. D. Smith, Hanford Engineering Development Laboratory, HEDL-TC-2562, submitted to Lawrence Livermore National Laboratory under subcontract, March 1985.
180. Radionuclide Release From PWR Fuels in a Reference Tuff Repository Groundwater, V. Oversby and C. Wilson, published in Proceedings of the Waste Management 85 Meeting, Vol. 1, pp. 497-503, Tucson, AZ, March 25-29, 1985, also available as Lawrence Livermore National Laboratory Report UCRL-91464, March 1985.
181. Corrosion Performance of Metals and Alloys in a Tuff Geochemical Environment, R. A. Van Konynenburg and R. D. McCright, published in Proceedings of the Waste Management '85 Meeting, Vol. 1, pp. 453-457, Tucson, AZ, March 25-29, 1985, also available as Lawrence Livermore National Laboratory Report UCRL-91740, March 1985.
182. Permeability and Fluid Chemistry Studies of the Topopah Spring Member of the Paintbrush Tuff, Nevada Test Site: Part II, D. E. Moore, C. A. Morrow and J. D. Byerlee, Lawrence Livermore National Laboratory Contractor Report UCRL-15667, March 1985.
183. NNWSI Waste Form Test Method for Unsaturated Disposal Conditions, J. Bates and T. Gerding, published in Proceedings of the Waste Management 85 Meeting, Vol. 1, pp. 459-465, Tucson, AZ, March 25-29, 1985, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15723, March 1985.
184. The Reaction of Topopah Spring Tuff with J-13 Water at 150°C - Samples From Drill Cores USWG-1, USWGU-3, USW G-4, and UE-25h#1, V. Oversby, Lawrence Livermore National Laboratory Report UCRL-53629, March 1985.
185. Evaluation of the Potential for Spent Fuel Oxidation Under Tuff Repository Conditions, R. Einziger and R. Woodley, Hanford Engineering Development Laboratory, HEDL 7452, submitted to Lawrence Livermore National Laboratory under subcontract, March 1985.
- 186.* The Effect of Gamma Irradiation on the Strength and Elasticity of Climax Stock and Westerly Granites, W. B. Durham, J. M. Beiriger, M. Axelrod, and S. Trettenero, published in "Nuclear and Chemical Waste Management", Vol. 6, pp. 159-168, also available as Lawrence Livermore National Laboratory Report UCRL-92526, March 1985.
187. Field Investigation of Keyblock Stability, J. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53632, April 1985.
188. Application of the Ruthenium and Technetium Thermodynamic Data Bases Used in the EQ3/6 Geochemical Codes, D. Isherwood, Lawrence Livermore National Laboratory Report UCRL-53594, April 1985.

189. Metallurgical Analysis of a 304L Stainless Steel Canister from the Spent Fuel Test-Climax, H. Weiss, R. A. Van Konynenburg and R. D. McCright, Lawrence Livermore National Laboratory Report UCID-20436, April 1985.
190. Microstructural Characteristics of PWR Spent Fuel Relative to Its Leaching Behavior, C. N. Wilson, Hanford Engineering Development Laboratory, HEDL-SA-3313, submitted to Lawrence Livermore National Laboratory under subcontract for presentation at the American Ceramic Society 87th Annual Meeting, Cincinnati, OH, May 5-9, 1985, (no printed Proceedings), Lawrence Livermore National Laboratory Contractor Report UCRL-15976, April 1985.
191. Hydrothermal Interaction of Crushed Topopah Spring Tuff and J-13 Water at 90°C, 150°C, and 250°C Using Dickson-Type Gold Bag Rocking Autoclaves, K. Knauss, W. Beiriger and D. Peifer, Lawrence Livermore National Laboratory Report UCRL-53630, May 1985.
192. Concept for Waste Package Environment Tests in the Yucca Mountain Exploratory Shaft, J. L. Yow, Jr., Lawrence Livermore National Laboratory Report UCID-20450, May 1985.
193. Spent Fuel Cladding Corrosion Under Tuff Repository Conditions - Initial Observations, H. D. Smith and V. M. Oversby, Lawrence Livermore National Laboratory Report UCID-20499, June 1985.
194. Zircaloy Cladding Corrosion Degradation in a Tuff Repository. Initial Experimental Plan, H. D. Smith, Hanford Engineering Development Laboratory, HEDL-7455, Rev. 1, submitted to Lawrence Livermore National Laboratory under subcontract, July 1985.
195. Blind Zones in Acquisition of Discontinuity Orientation Data, J. L. Yow, Jr., published in "International Journal of Rock Mechanics and Mining Sciences and Geomechanics Abstracts", Vol. 24, No. 5, pp. 317-318, October 1987, also available as Lawrence Livermore National Laboratory Report UCRL-89960, July 1985.
- 196.* Post-Test Thermomechanical Calculational and Preliminary Data Analyses, T. R. Butkovich and W. C. Pactick, Lawrence Livermore National Laboratory Report UCRL-53688, July 1985.
197. Technical Test Description of Activities to Determine the Potential for Spent Fuel Oxidation in a Tuff Repository, R. Einziger, Hanford Engineering Development Laboratory, HEDL-7540, submitted to Lawrence Livermore National Laboratory under subcontract, August 1985.
- 198.* Spent Fuel Test-Climax: Technical Measurements Data Management System Description and Data Presentation, R. C. Carlson, Lawrence Livermore National Laboratory Report UCID-20712, August 1985.
- 199.* Negative Hysteresis Effect Observed During Calibration of the U.S. Bureau of Mines Borehole Deformation Gauge, H. C. Ganow, Lawrence Livermore National Laboratory Report UCID-20523, August 1985.
200. Results from NNWSI Series 1 Spent Fuel Leach Tests, C. N. Wilson, Hanford Engineering Development Laboratory, HEDL-TME 84-30, submitted to Lawrence Livermore National Laboratory under subcontract, August 1985.
201. FY85 Status Report on Feasibility Assessment of Copper-Base Waste Package Container Materials in a Tuff Repository, D. McCright, Lawrence Livermore National Laboratory Report UCID-20509, September 1985.

202. Corrosion Processes of Austenitic Stainless Steels and Copper-Based Materials in Gamma-Irradiated Aqueous Environments, R. Glass, R. Van Konynenburg and G. Overturf, published in Corrosion 86, paper #258, March 17-21, 1986, Houston, TX, also available as Lawrence Livermore National Laboratory Report UCRL-92941, September 1985.
203. Derivation of a Waste Package Source Term for NNWSI from the Results of Laboratory Experiments, V. M. Oversby and C. N. Wilson, published in Proceedings of the Materials Research Society 1985 Symposium on the Scientific Basis for Nuclear Waste Management, Stockholm, Sweden, Vol. 50, pp. 337-346, also available as Lawrence Livermore National Laboratory Report UCRL 92096, September 1985.
204. Water Transport in Topopah Spring Tuff--Implications for a Nuclear Waste Repository in Tuff, W. Lin and W. Daily, Lawrence Livermore National Laboratory Report UCRL-93382, September 1985.
205. A Ground Reaction Curve Based Upon Block Theory, J. L. Yow, Jr. and R. Goodman, published in "Journal of Rock Mechanics and Rock Engineering", Vol. 20, No. 3, pp. 167-190, July-September 1987, also available as Lawrence Livermore National Laboratory Report UCRL-93431, September 1985.
206. Hydrothermal Interaction of Solid Wafers of Topopah Spring Tuff with J-13 Water and Distilled Water at 90°, 150°, and 250°C Using Dickson-Type, Gold-Bag Rocking Autoclaves, K. Knauss, W. Beiriger, D. Peifer and A. Piwinskii, Lawrence Livermore National Laboratory Report UCRL-53645, September 1985.
- 207.* Post-Test Thermomechanical Calculations and Preliminary Data Analysis for the Spent Fuel Test - Climax, T. Butkovich and W. Patrick, Lawrence Livermore National Laboratory Report UCRL-53688, September 1985.
208. Reaction of Topopah Spring Tuff with J-13 Water: A Geochemical Modeling Approach Using the EQ3/6 Reaction Path Code, J. Delany, Lawrence Livermore National Laboratory Report UCRL-53631, November 1985.
209. Improvements in the Solid Solution Modeling Capabilities of the EQ3/6 Geochemical Code, W. L. Bourcier, Lawrence Livermore National Laboratory Report UCID-20587, November 1985.
210. The Effect of Gamma Irradiation on the Strength and Elasticity of Climax Stock and Westerly Granites, W. Durham, W. Beiriger, M. Axelrod and S. Trettenaro, published in "Nuclear and Chemical Waste Management", Vol. 6, pp. 159-168, also available as Lawrence Livermore National Laboratory Report UCRL-92526, Rev. 1, December 1985.
211. Low Temperature Spent Fuel Oxidation Under Tuff Repository Conditions, R. Einziger and R. Woodley, published in Proceedings of the Waste Management 85 Meeting, Vol. 1, pp. 505-512, Tucson, AZ, March 25-29, 1985, Hanford Engineering Development Laboratory Report, HEDL-SA-3271FP, submitted to Lawrence Livermore National Laboratory under subcontract, December 1985.
211. Control of Research Oriented Software Development, L. C. Lewis, J. J. Dronkers and B. Pitsker, published in 1986 ASCQ Quality Congress Transaction, Anaheim, CA, May 19-21, 1986, pp. 364-371, also available as Lawrence Livermore National Laboratory Report UCRL-94031, December 1985.
- 212.* Spent Fuel Test-Climax Mine-By Revisited, T. R. Butkovich, Lawrence Livermore National Laboratory Report UCID-20673, December 1985.
- 213.* Estimates of In-Situ Deformability with an NX Borehole Jack, Spent Fuel Test-Climax, Nevada Test Site, W. C. Patrick, J. Yow, Jr. and M. C. Axelrod, Lawrence Livermore National Laboratory Report UCRL-53673, December 1985.

214. Hydrological Properties of Topopah Spring Tuff - Laboratory Measurements, W. Daily, W. Lin and T. Buscheck, published in "Journal of Geophysical Research", Vol. 92, No. B8, pp. 7854-7864, July 10, 1987, also available as Lawrence Livermore National Laboratory Report UCRL-94363, December 1985.
215. Effectiveness of Geologic Characterization Techniques, Climax Granite Stock, Nevada Test Site, D. G. Wilder and J. L. Yow, Jr., published in "Bulletin of the Association of Engineering Geologists", Vol. XXIV, No. 4, 1987, pp. 537-548, also available as Lawrence Livermore National Laboratory Report UCRL-92687, January 1986.
216. Evaluation of Alterant Geophysical Tomography in Welded Tuff, A. Ramirez and W. Daily, published in "Journal of Geophysical Research", Vol. 92, No. B8, pp. 7843-7853, July 1987, also available as Lawrence Livermore National Laboratory Report UCRL-94291, January 1986.
217. An Exact Similarity Solution for Coupled Deformation and Fluid Flow in Discrete Fractures, A. M. Wijesinghe, Lawrence Livermore National Laboratory Report UCID-20675, February 1986.
218. High Temperature Permeability of Some Nevada Test Site Tuffs, D. Moore, C. Morrow and J. Byerlee, USGS, published in "Journal of Geophysical Research", Vol. 91, No. B2, pp. 2163-2171, February 1986.
219. Test Plan for Series 2 Thermogravimetric Analyses of Spent Fuel Oxidation, R. E. Einziger and R. E. Woodley, Hanford Engineering Development Laboratory, HEDL-7556, submitted to Lawrence Livermore National Laboratory under subcontract, February 1986.
220. The Reaction of Glass During Gamma Irradiation in a Saturated Tuff Environment, Part I: SRL 165 Glass, J. K. Bates, D. F. Fischer and T. J. Gerding, Argonne National Laboratory Report, ANL-85-62, submitted to Lawrence Livermore National Laboratory under subcontract, February 1986.
221. Important Radionuclides in High Level Nuclear Waste Disposal: Determination Using a Comparison of the EPA and NRC Regulations, V. Oversby, published in "Nuclear and Chemical Waste Management", Vol. 7, No. 2, pp. 149-161, 1987, also available as Lawrence Livermore National Laboratory Report UCRL-94222, February 1986.
222. The PLUS Family, A Set of Computer Programs to Evaluate Analytical Solutions of the Diffusion Equation, D. N. Montan, Lawrence Livermore National Laboratory Report UCID-20680, February 1986.
223. Proton Precession Magnetometer, R. Stager, Lawrence Livermore National Laboratory Report UCID-21113, March 1986.
224. Analysis and Observation of Keyblock Occurrence in Tunnels in Granite, J. L. Yow, Jr., published in Proceedings of the 27th Rock Mechanics Symposium, Alabama, pp. 827-833, June 23-25, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-93412, March 1986.
225. Inelastic Deformations of Fault and Shear Zones in Granitic Rock, D. G. Wilder, published in Proceedings of the 27th Rock Mechanics Symposium, Alabama, pp. 868-873, June 23-25, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-93422, March 1986.
- 226.* Thermomechanical Modeling of the Spent Fuel Test-Climax, T. R. Butkovich and W. C. Patrick, published in Proceedings of the 27th Rock Mechanics Symposium, Alabama, pp. 898-905, June 23-25, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-93421, March 1986.

227. Some Forms of Transition State Theory, Including Non-Equilibrium Steady State Forms, and Their Applications in Geochemistry, T. J. Wolery, Lawrence Livermore National Laboratory Report UCRL-94221, March 1986.
228. An Application of Software Quality Assurance to a Specific Scientific Code Development Task, J. J. Dronkers, presented at the 17th California Quality Week, Santa Clara, CA, March 21-22, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94600, March 1986.
229. NNWSI Waste Form Testing at Argonne National Laboratory, Semi-Annual Report, July-December 1985, J. K. Bates, T. J. Gerding, T. A. Abrajano, Jr. and W. Ebert, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15801, March 1986.
230. Thermomechanical Scoping Calculations for the Waste Package Environment Tests, T. R. Butkovich and J. L. Yow, Jr., Lawrence Livermore National Laboratory Report UCID-20758, March 1986.
231. Thermal Calculations Pertaining to Experiments in the Yucca Mountain Exploratory Shaft, D. N. Montan, Lawrence Livermore National Laboratory Report UCID-20780, March 1986.
- 232.* Spent Fuel Test-Climax: An Evaluation of the Technical Feasibility of Geologic Storage of Spent Nuclear Fuel in Granite - Final Report, W. C. Patrick, Lawrence Livermore National Laboratory Report UCRL-53702, March 1986.
233. "C-Ring" Stress Corrosion Cracking Scoping Experiment for Zircaloy Spent Fuel Cladding, H. D. Smith, Hanford Engineering Development Laboratory, Report HEDL-7546, submitted to Lawrence Livermore National Laboratory under subcontract, April 1986.
234. Zircaloy Spent Fuel Cladding Electrochemical Corrosion Experiment at 170 and 120 PSIA H₂O, H. D. Smith, Hanford Engineering Development Laboratory Report, HEDL-7545, submitted to Lawrence Livermore National Laboratory under subcontract, April 1986.
235. Estimates of Radionuclide Release From Glass Waste Forms in a Tuff Repository and the Effects on Regulatory Compliance, R. D. Aines, published in the Proceedings of the American Ceramic Society, 3rd International Symposium on Nuclear Waste Disposal, "Advances in Ceramics", Nuclear Waste Management II, Chicago, IL, April 1986, Vol. 20, pp. 91-98, also available as Lawrence Livermore National Laboratory Report UCRL-93735, April 1986.
236. A Monte Carlo Investigation of a Proposed Screen for NX-Borehole Jack Data, M. C. Axelrod, S. P. Verrill, W. C. Patrick and J. L. Yow, Jr., published in "ASTM Geotechnical Testing Journal", Vol. 11, No. 1, pp. 20-29, March 1988, also available as Lawrence Livermore National Laboratory Report UCRL-94087, April 1986.
237. Test Plan for Series 3 NNWSI Spent Fuel Leaching/Dissolution Tests, C. N. Wilson, Hanford Engineering Development Laboratory, HEDL-7577, submitted to Lawrence Livermore National Laboratory under subcontract, May 1986.
238. Radiation Chemical Effects in Experiments to Study the Reaction of Glass in a Gamma-Irradiated Air Groundwater and Tuff Environment, R. Van Konynenburg, Lawrence Livermore National Laboratory Report UCRL-53719, May 1986.
239. Application of EQ3/6 to Modeling of Nuclear Waste Glass Behavior in a Tuff Repository, R. Aines, Lawrence Livermore National Laboratory Report UCID-20895, May 1986.

240. Precipitation Kinetics Option for the EQ3/6 Geochemical Reaction Path Code, J. Delany, I. Puigdomenech and T. Wolery, Lawrence Livermore National Laboratory Report UCRL-53642, May 1986.
241. The Effects of Gamma Radiation on Groundwater Chemistry and Glass Leaching as Related to the NNWSI Repository Site, T. Abrajano, J. Bates, W. Ebert and T. Gerding, Argonne National Laboratory, Lawrence Livermore National Laboratory Contract Report UCRL-15825, May 1986.
242. Geochemical Gradients in the Topopah Spring Member of the Paintbrush Tuff: Evidence for Eruption across a Magmatic Interface, B. C. Schuraytz, T. Vogel and L. Younker, Lawrence Livermore National Laboratory Report UCRL-53698, June 1986.
243. The Tuff Reaction Vessel Experiment, F. Bazan and J. H. Rego, Lawrence Livermore National Laboratory Report UCRL-53735, June 1986.
244. Corrosion of Copper-Based Materials in Gamma Radiation, W. Yunker, Hanford Engineering Development Laboratory Report, HEDL-7612, submitted to Lawrence Livermore National Laboratory under subcontract, June 1986.
- 245.* Post-Test Thermal Calculations and Data Analyses for the Spent Fuel Test-Climax, D. Montan and W. Patrick, Lawrence Livermore National Laboratory Report UCRL-53728, June 1986.
246. Test Plan for Long-Term, Low-Temperature Oxidation of Spent Fuel Series I, R. E. Einziger, Westinghouse Hanford Company Report, HEDL-7560, submitted to Lawrence Livermore National Laboratory under subcontract, July 1986.
247. One-Year Results of the NNWSI Unsaturated Test Procedure: SRL 165 Glass Application, J. Bates and T. Gerding, Argonne National Laboratory, ANL-85-41, submitted to Lawrence Livermore National Laboratory under subcontract, August 1986.
248. Geochemical Modeling (EQ3/6) Plan Office of Civilian Radioactive Waste Management Program, W. McKenzie, T. Wolery, J. Delany, R. Silva, K. Jackson, W. Bourcier and D. Emerson, Lawrence Livermore National Laboratory Report UCID-20864, August 1986.
249. Feasibility Assessment of Copper-Based Waste Package Container Materials in Tuff Repository, C. Acton and R. McCright, Lawrence Livermore National Laboratory Report UCID-20847, August 1986.
- 250.* Spent Fuel Test-Climax: An Evaluation of the Technical Feasibility of Geologic Storage of Spent Nuclear Fuel in Granite. Executive Summary of Final Results, W. C. Patrick, Lawrence Livermore National Laboratory UCRL-53762, September 1986.
251. Reference Waste Package Environment Report, W. Glassley, Lawrence Livermore National Laboratory Report UCRL-53726, October 1986.
252. Waste Package Assessment: Deterministic System Model Program Scope and Specification, W. O'Connell and R. Drach, Lawrence Livermore National Laboratory Report UCRL-53761, October 1986.
253. Carbon-14 in Waste Packages for Spent Fuel in a Tuff Repository, R. Van Konynenburg, C. Smith, C. Culham and H. D. Smith, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 185-196, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94708, October 1986.
254. Scientific Investigation Plan for NNWSI, WBS Element 1.2.2.5.L, NNWSI Waste Package Performance Assessment, K. Eggert, W. O'Connell and D. Lappa, Lawrence Livermore National Laboratory Report UCID-20967, October 1986.

255. Reaction of Vitric Topopah Spring Tuff and J-13 Ground Water Under Hydrothermal Conditions Using Dickson-Type, Gold-Bag Rocking Autoclaves, K. Knauss and D. Peifer, Lawrence Livermore National Laboratory Report UCRL-53795, November 1986.
256. The Effects of Gamma Radiation on Groundwater Chemistry and Glass Reaction in a Saturated Tuff Environment, W. Ebert, J. Bates, T. Gerding and R. Van Konynenburg, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 613-622, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-95884, December 1986.
257. Experimental Study of the Dissolution of Spent PWR Fuel at 85°C in Natural Groundwater, C. Wilson and H. Shaw, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 123-130, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94633, December 1986.
258. Integrated Testing of SRL-165 Glass Waste Form, D. Phinney, R. Ryerson, V. Oversby, R. Lanford, R. Aines and J. Bates, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 433-446, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94658, December 1986.
259. Spent Fuel as a Waste Form - Data Needs to Allow Long Term Performance Assessment Under Repository Disposal Conditions, V. M. Oversby, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 87-101, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94659, December 1986.
260. Zeolitization of Glassy Topopah Spring Tuff Under Hydrothermal Conditions, K. G. Knauss, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 737-745, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94664, December 1986.
261. Copper Corrosion in Irradiated Environments. The Influence of H₂O₂ on the Electrochemistry of Copper Dissolution in HCL Electrolyte, W. H. Smyrl, B. T. Bell, R. T. Atanasoski and R. S. Glass, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 591-601, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-95961, December 1986.
262. Transport and Reaction Kinetics at the Glass: Solution Interface Regions: Results of Repository Oriented Leaching Experiments, T. Abrajano and J. Bates, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 533-546, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Contractor Report UCRL-15881, December 1986.
263. Long-Term Corrosion Behavior of Copper-Based Materials in a Gamma-Irradiated Environment, W. Yunker and R. Glass, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 579-590, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94500, December 1986.
264. Hydrogen Speciation in Hydrated Layers on Nuclear Waste Glass, R. D. Aines, H. C. Weed and J. K. Bates, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 547-558, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-95962, January 1987.

265. Leaching of Actinide-Doped Nuclear Waste Glass in a Tuff-Dominated System, F. Bazan, J. Rego and R. Aines, published in Proceedings of the Materials Research Society Symposium, Vol. 84, pp. 447-458, Boston, MA, December 1-5, 1986, also available as Lawrence Livermore National Laboratory Report UCRL-94721, January 1987.
266. Preliminary Evaluation of an Electromagnetic Experiment to Map In Situ Water in Heated Welded Tuff, W. Daily and A. Ramirez, Lawrence Livermore National Laboratory Report UCRL-96816, February 1987.
267. The PLUS Family - A Set of Computer Programs to Evaluate Analytical Solutions of the Diffusion Equation and Thermoelasticity, D. Montan, Lawrence Livermore National Laboratory UCID-21099, February 1987.
268. Influence of Stress-Induced Deformation on Observed Water Flow in Fractures at the Climax Granitic Stock, D. G. Wilder, published in Proceedings of the 28th U.S. Symposium on Rock Mechanics, Tucson, AZ, pp. 491-500, June 26-July 1, 1987, also available as Lawrence Livermore National Laboratory Report UCRL-95539, March 1987.
269. Electromagnetic Experiment to Map In Situ Water in Heated Welded Tuff: Preliminary Results, A. Ramirez and W. Daily, published in Proceedings of the 28th U.S. Symposium on Rock Mechanics, Tucson, AZ, pp. 37-46, June 26-July 1, 1987, also available as Lawrence Livermore National Laboratory Report UCRL-96318, March 1987.
270. An Experiment to Determine Drilling Water Imbibition by In Situ Densely Welded Tuff, W. Daily and A. Ramirez, Lawrence Livermore National Laboratory Report UCID-21249, Rev. 1, April 1987.
271. Thermomechanical Calculations Pertaining to Experiments in the Yucca Mountain Exploratory Shaft, D. Montan, Lawrence Livermore National Laboratory Report UCID-21100, April 1987.
272. Hydrothermal Interaction of Solid Wafers of Topopah Spring Tuff with J-13 Water at 90°C and 150°C Using Dickson-Type, Gold-Bag Rocking Autoclaves: Long-Term Experiments, K. Knauss, W. Beiriger, and D. Peifer, Lawrence Livermore National Laboratory Report UCRL-53722, May 1987.
273. The Influence of Copper Zircaloy Spent Fuel Cladding Degradation Under a Potential Tuff Repository Condition, H. D. Smith, Westinghouse Hanford Co., HEDL-SA-3583, submitted to Lawrence Livermore National Laboratory under subcontract, as Lawrence Livermore National Laboratory Report UCRL-15993, May 1987.
274. Plan for Integrated Testing for NNWSI Non-EQ3/6 Data Base Portion, V. M. Oversby, Lawrence Livermore National Laboratory Report UCID-21274, May 1987.
275. Test Concept for Waste Package Environment Tests at Yucca Mountain, J. L. Yow, Jr., published in Proceedings of the 28th U. S. Symposium on Rock Mechanics, Tucson, AZ, pp. 1035-1042, June 26-July 1, 1987, also available as Lawrence Livermore National Laboratory Report UCRL-95568, June 1987.
- 276.* Geomechanics of the Spent Fuel Test-Climax, D. Wilder and J. Yow, Jr., Lawrence Livermore National Laboratory Report UCRL-53767, July 1987.
277. NNWSI Waste Form Testing at Argonne National Laboratory Semiannual Report: January-June 1986, J. Bates, T. Gerding, T. Abrajano and W. Ebert, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contract Report UCRL-15801-86-1, July 1987.

278. Results From Cycles 1 and 2 of NNWSI Series 2 Spent Fuel Dissolution Tests, C. N. Wilson, Westinghouse Hanford Company, HEDL-TME 85-22, submitted to Lawrence Livermore National Laboratory under subcontract, August 1987.
279. Summary of Results from the Series 2 and 3 NNWSI Bare Fuel Dissolution Tests, C. N. Wilson, Westinghouse Hanford Company, Pacific Northwest Laboratory, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 30-December 5, 1987, Vol. 1, pp. 473-483, also submitted to Lawrence Livermore National Laboratory under subcontract, August 1987.
280. Thermochemistry of Uranium Compounds, XVI. Calorimetric Determination of the Standard Molar Enthalpy of Formation at 298.25°K, Low-Temperature Heat Capacity, and High-Temperature Enthalpy Increments of $\text{UO}_2(\text{OH})_2 \cdot \text{H}_2\text{O}$ (Schoepite), I. Tasker, P. O'Hare, B. Lewis, G. Johnson and E. Cordfunke, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractors Report UCRL-21055, August 1987.
281. Synthesis and Characterization of Uranium Silicate Minerals, S. Nguyen, R. Silva and H. Weed, report included in "LLNL Nuclear Chemistry Division Annual Report", pp. 3-5 - 3-8, Lawrence Livermore National Laboratory, August 1987.
282. The Dissolution Kinetics of Quartz as a Function of pH and Time at 70°C, K. Knauss and T. Wolery, published in "Geochimica and Cosmochimica Acta", Vol. 52, No. 1, pp. 43-53, January 1988, also available as Lawrence Livermore National Laboratory Report UCRL-96071, September 1987.
283. Plan for Glass Waste Form Testing for NNWSI, R. D. Aines, Lawrence Livermore National Laboratory Report UCID-21190, September 1987.
284. Predicting Spent Fuel Oxidation States in a Tuff Repository, R. Einziger and R. Woodley, Hanford Engineering Development Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, HEDL-SA-3627, submitted to Workshop on Chemical Reactivity of Oxide Fuel and Fission Product Release, Berkeley, England, September 1987.
285. Estimates of the Hydrologic Impact of Drilling Water on Core Samples Taken from Partially Saturated Densely Welded Tuff, T. Buscheck and J. Nitao, Lawrence Livermore National Laboratory Report UCID-21294, September 1987.
286. Impact of Phase Stability on the Corrosion Behavior of the Austenitic Candidate Materials for NNWSI, D. Bullen, G. Gdowski and D. McCright, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 30-December 5, 1987, Vol. 112, pp. 795-803, also available as Lawrence Livermore National Laboratory Report UCRL-97562, October 1987.
287. The Performance of Actinide-Containing SRL-165 Type Glass in Unsaturated Conditions, J. Bates and T. Gerding, published in Proceedings of the Materials Research Society Symposium, Vol. 112, pp. 651-662, Boston, MA, November 30-December 5, 1987, October 1987.
288. Thermodynamic Data Bases for Multivalent Elements: An Example for Ruthenium, J. A. Rard, submitted to International Conference on Thermodynamics of Aqueous Systems with Industrial Applications, Warrenton, VA, May 10-14, 1987, Lawrence Livermore National Laboratory Report UCRL-96555, November 1987.
289. Plan for Spent Fuel Waste Form Testing for NNWSI, H. Shaw, Lawrence Livermore National Laboratory Report UCID-21272, November 1987.

290. Geochemical Simulation of Reaction between Spent Fuel Waste Form and J-13 Water at 25 and 90°C, C. Bruton and H. Shaw, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 30-December 5, 1987, Vol. 112, pp. 485-494, also available as Lawrence Livermore National Laboratory Report UCRL-96702, November 1987.
291. Geochemical Simulation of Dissolution of West Valley and DWPF Glasses in J-13 Water at 90°C, C. Bruton, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 30-December 5, 1987, Vol. 112, pp. 607-619, also available as Lawrence Livermore National Laboratory Report UCRL-96703, November 1987.
292. Effect of Ionizing Radiation on Moist Air Systems, D. Reed and R. Van Konynenburg, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 30-December 5, 1987, Vol. 112, pp. 393-404, also available as Lawrence Livermore National Laboratory Report UCRL-97936, November 1987.
293. Corrosion Testing of Type 304L Stainless Steel in Tuff Groundwater Environments, R. Westerman, S. Pitman and J. Haberman, Pacific Northwest Laboratories, PNL-5829, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contract Report UCRL-21005, November 1987.
294. The Reaction of Glass in a Gamma Irradiated Saturated Tuff Environment: Part II. Data Package for ATM-1c and ATM-8 Glass, J. Bates, T. Gerding, D. Fischer and W. Ebert, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contract Report UCRL-15991, (no distribution), November 1987.
295. An Approximate Calculation of Advective Gas Phase Transport of Carbon 14 at Yucca Mountain, Nevada, R. Knapp, published in the "Journal of Contaminant Hydrology", Vol. 5, 1990, pp. 133-154, also available as Lawrence Livermore National Laboratory Report UCRL-97805, November 1987.
296. Preliminary Technique Assessment for Nondestructive Evaluation Certification of the NNWSI Disposal Container Closure, R. A. Day, Lawrence Livermore National Laboratory Report UCID-21323, November 1987.
297. Progress Report on the Results of Testing Advanced Conceptual Design Metal Barrier Materials Under Relevant Environmental Conditions for a Tuff Repository, D. McCright, W. Halsey and R. Van Konynenburg, Lawrence Livermore National Laboratory Report UCID-21044, December 1987.
298. Spent Fuel Performance Data: An Analysis of Data Relevant to the NNWSI Project, V. Oversby and H. Shaw, Lawrence Livermore National Laboratory Report UCID-20926, December 1987.
299. Interim Report on Modeling Sorption with EQ3/6, B. Viani, Lawrence Livermore National Laboratory Report UCID-21308, January 1988.
300. Thermochemistry of Uranium Compounds XVII. Standard Molar Enthalpy of Formation at 298.15°K of Dehydrated Schoepite $\text{UO}_3 \cdot 0.9\text{H}_2\text{O}$. Thermodynamics of (Schoepite + Dehydrated Schoepite + Water), P. O'Hare and S. Nguyen, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-21053, January 1988.
301. The Reaction of Glass in a Gamma-Irradiated Saturated Tuff Environment Part III: Long Term Experiments at 1×10^4 Rad/hour, T. Abrajano, J. Bates, T. Gerding and W. Ebert, Argonne National Laboratory Report ANL-88-14, submitted to Lawrence Livermore National Laboratory under subcontract, February 1988.

302. Plan for Waste Package Environment for NNWSI, W. Glassley, Lawrence Livermore National Laboratory Report UCID-21326, February 1988.
303. NNWSI Waste Form Testing at Argonne National Laboratory Semiannual Report, July-December 1986, J. Bates, T. Gerding, A. Abrajano, W. Ebert and J. Mazer, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Report UCRL-15801-86-2, February 1988.
304. Plan for Design, Fabrication, and Prototype Testing for NNWSI, E. W. Russell and T. A. Nelson, Lawrence Livermore National Laboratory Report UCID-21347, February 1988.
305. Plan for Metal Barrier Selection and Testing for NNWSI, W. G. Halsey and R. D. McCright, Lawrence Livermore National Laboratory Report UCID-21262, April 1988.
306. NNWSI Waste Form Testing at Argonne National Laboratory Semi-Annual Report, January-June 1987, J. Bates, T. Gerding, A. Abrajano, W. Ebert and J. Mazer, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-21060-87-1, April 1988.
307. Hydrological Properties of Topopah Spring Tuff Under a Thermal Gradient Laboratory Results, W. Lin and W. Daily, published in "International Journal of Rock Mechanics", Vol. 27, #5, pp. 373-385, 1990, also available as Lawrence Livermore National Laboratory Report UCRL-96926, April 1988.
308. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 3, Localized Corrosion and Stress Corrosion Cracking of Austenitic Alloys, J. C. Farmer, R. A. Van Konynenburg, D. McCright, LLNL, and D. B. Bullen, Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362, Vol. 3, April 1988.
309. Numerical Modeling of the Thermal and Hydrological Environment Around a Nuclear Waste Package Using the Equivalent Continuum Approximation: Horizontal Emplacement, J. Nitao, Lawrence Livermore National Laboratory Report, UCID-21444, May 1988.
310. Estimates of the Width of the Wetting Zone Along a Fracture Subjected to an Episodic Infiltration Event in Variably Saturated, Densely Welded Tuff, T. Buscheck and J. Nitao, Lawrence Livermore National Laboratory Report UCID-21579, May 1988.
311. Electrochemical Corrosion Studies on Copper-Base Waste Package Container Materials in Unirradiated 0.1 N NaNO₃ at 95°C, Akkaya and Verink with forward by R. Van Konynenburg, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Report UCRL-21076, May 1988.
312. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 4, Stress Corrosion Cracking of Copper-Based Alloys, J. C. Farmer, R. A. Van Konynenburg, R. D. McCright, LLNL and G. E. Gdowski Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362 Vol. 4, May 1988.
313. The Reaction of Reference Commercial Nuclear Waste Glasses During Gamma Irradiation in a Saturated Tuff Environment, J. Bates, W. Ebert, D. Fischer and T. Gerding, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in "Journal of Materials Research 3" (3), pp. 576-597, May/June 1988.
314. Long-Term, Low-Temperature Oxidation of PWR Spent Fuel Interim Transition Report, R. E. Einziger and H. C. Buchanan, WHC-EP-0070, submitted to Lawrence Livermore National Laboratory under subcontract, June 1988.

315. Assessment of Engineered Barrier Systems and Design of Waste Packages, L. Ramspott, presented at the American Nuclear Society Meeting, San Diego, CA, June 12-16, 1988, published in Transactions, pg. 216, also available as Lawrence Livermore National Laboratory Report UCRL-98029, June 1988.
316. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Overview, J. C. Farmer, R. D. McCright and J. N. Kass, Lawrence Livermore National Laboratory Report UCID-21362, June 1988.
317. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 5, Localized Corrosion of Copper-Based Alloys, J. C. Farmer, R. A. Van Konynenburg, R. D. McCright, LLNL and G. E. Gdowski, Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362, Vol. 5, June 1988.
318. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 7, Weldability of Austenitic Alloys, M. J. Strum, H. Weiss and J. C. Farmer, LLNL and D. B. Bullen, Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362, Vol. 7, June 1988.
319. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 8, Weldability of Austenitic Alloys, D. B. Bullen and G. E. Gdowski, Science & Engineering Associates, Inc., and H. Weiss, LLNL, Lawrence Livermore National Laboratory Report UCID-21362, Vol. 8, June 1988.
320. Simulations of the Transport of Radionuclides by Liquid Diffusion at Yucca Mountain - Comparisons With and Without Backfill, J. Nitao, Lawrence Livermore National Laboratory Report UCID-21466, July 1988.
321. Annotated History of Container Candidate Material Selection, R. McCright, Lawrence Livermore National Laboratory Report UCID-21472, July 1988.
322. Measurement of the Oxidation of Spent Fuel Between 140° and 225°C, R. Woodley, R. Einziger and H. Buchanan, Pacific Northwest Laboratory, PNL-SA-15496, submitted to Lawrence Livermore National Laboratory under subcontract, July 1988.
323. Application of the NNWSI Unsaturated Test Method to Actinide Doped SRL 165 Type Glass, J. Bates and T. Gerding, Argonne National Laboratory Report ANL-89/24, submitted to Lawrence Livermore National Laboratory under subcontract, July 1988.
324. The Reaction of Glass During Gamma Irradiation in a Saturated Tuff Environment Part 4: SRL 165, ATM-1c, and ATM-8 Glasses at 1E3 R/h and O R/h, W. Ebert, J. Bates and T. Gerding, Argonne National Laboratory Report ANL-90/13 (1990), submitted to Lawrence Livermore National Laboratory under subcontract, August 1988.
325. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 1, Phase Stability, D. B. Bullen and G. E. Gdowski, Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362 Vol. 1, August 1988.
326. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 2, Oxidation and Corrosion, D. B. Bullen and G. E. Gdowski, Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362, Vol. 2, August 1988.
327. Survey of Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, Volume 6, Effects of Hydrogen in Austenitic and Copper-Based Alloys, G. E. Gdowski and D. B. Bullen, Science & Engineering Associates, Inc., Lawrence Livermore National Laboratory Report UCID-21362, Vol. 6, August 1988.

328. NNWSI Waste Form Testing at Argonne National Laboratory Semi-Annual Report January - June 1988, J. Bates, T. Gerding, W. Ebert, J. Mazer and B. Biwer, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-CR-21060-88-1, August 1988.
329. Measurement of the Oxidation of Spent Fuel between 140° and 225°C by Thermogravimetric Analysis, R. Woodley, R. Einziger and H. Buchanan, Westinghouse Hanford Company Report WHC-EP-0107, submitted to Lawrence Livermore National Laboratory under subcontract, September 1988.
330. Thermal Performance of a Buried Nuclear Waste Storage Container Storing a Hydride Mix of PWR and BWR Spent Fuel Rods, G. Johnson, Lawrence Livermore National Laboratory Report UCID-21414, September 1988.
331. Fabrication Development for High-Level Nuclear Waste Containers for the Tuff Repository Phase 1 Final Report, H. Domian, R. Holbrook and D. LaCount, Babcock and Wilcox, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15965, September 1988.
332. Uranium Transport in Topopah Spring Tuff: An Ion-Microscope Investigation, K. McKeegan, D. Phinney, V. Oversby, M. Buchholtz and D. Smith, submitted to Material Research Society, Berlin, Germany, October 1988, Vol. 127, pp. 813-821, Lawrence Livermore National Laboratory Report UCRL-99734, Rev. 1, October 1988.
333. NNWSI Waste Form Testing at Argonne National Laboratory - Semi-Annual Report, July-December 1987, J. Bates, T. Gerding, W. Ebert, J. Mazer and B. Biwer, Lawrence Livermore National Laboratory Contractor Report UCRL-21060-87-2, October 1988.
334. Electrochemical Corrosion Scoping Experiments--An Evaluation of the Results, H. D. Smith, Westinghouse Hanford Co., WHC-EP-0065 (formerly HEDL-7637), submitted to Lawrence Livermore National Laboratory under subcontract, October 1988.
335. Initial Report on Stress-Corrosion-Cracking Experiments Using Zircaloy-4 Spent Fuel Cladding C-Rings, H. D. Smith, Westinghouse Hanford Co., WHC-EP-0096 (formerly HEDL-7665), submitted to Lawrence Livermore National Laboratory under subcontract, October 1988.
336. Localized Corrosion and Stress Corrosion Cracking of Candidate Materials for High-Level Radioactive Waste Disposal Containers in U.S.: A Literature Review, J. Farmer and D. McCright, published in Proceedings of the Material Research Society Symposium, Berlin, Germany, October 1988, Vol. 127, pp. 359-372, also available as Lawrence Livermore National Laboratory Report UCRL-98756, November 1988.
337. Preliminary Scoping Calculations of Hydrothermal Flow in Variably Saturated, Fractured, Welded Tuff During the Engineered Barrier Design Test at the Yucca Mountain Exploratory Shaft Test Site, T. Buscheck and J. Nitao, Lawrence Livermore National Laboratory Report UCID-21571, November 1988.
338. MCRT User's Guide and Documentation, K. Jackson, T. Wolery, W. Bourcier, J. Delany, R. Moore, M. Clinnick and S. Lundeen, Lawrence Livermore National Laboratory Report UCID-21406, November 1988.
339. A Review of Models Relevant to the Predication of Performance of High-Level Radioactive Waste Disposal Containers, J. Farmer and D. McCright, published in Proceedings of the National Association Corrosion Engineers Conference, New Orleans, LA, Paper #519, April 17-21, 1989, also available as Lawrence Livermore National Laboratory Report UCRL-100172, November 1988.

340. Test Plan for Long-Term, Low Temperature Oxidation of BWR Spent Fuel, R. E. Einziger, Pacific Northwest Laboratories, PNL-6427, submitted to Lawrence Livermore National Laboratory under subcontract, December 1988.
341. Test Plan for Thermogravimetric Analysis of BWR Spent Fuel Oxidation, R. Einziger, Pacific Northwest Laboratory, PNL-6745, submitted to Lawrence Livermore National Laboratory under subcontract, December 1988.
342. Waste Package Performance Assessment for the Yucca Mountain Project, W. O'Connell, D. Lappa and T. Thatcher, published in Proceedings of the Waste Management '89 Symposia, Tucson, AZ, March 1-3, 1989, Vol. 1, pp. 551-558, also available as Lawrence Livermore National Laboratory Report UCRL 100395, January 1989.
343. Evaluation of the Post-Emplacement Environment of High-Level Radioactive Waste Packages at Yucca Mountain, Nevada, W. Glassley, published in Proceedings of the Waste Management '89 Symposia, Tucson, AZ, March 1-3, 1989, Vol. 1, pp. 477-483, also available as Lawrence Livermore National Laboratory Report UCRL-100603, March 1989.
344. Studies on Spent Fuel Dissolution Behavior under Yucca Mountain Repository Conditions, C. N. Wilson and C. Bruton, PNL-SA-16832, Pacific Northwest Laboratory, published in Proceedings of the American Ceramic Society Annual Meeting, Ceramics Transactions of Nuclear Waste Management III, Indianapolis, IN, April 23-27, 1989, G. B. Mellinger, Editor, Vol. 9, pp. 423-441, also available as Lawrence Livermore National Laboratory Report UCRL-10023, March 1989.
345. Fabrication and Closure Development of Nuclear Waste Containers for Storage at Nevada's Yucca Mountain, E. W. Russell, T. Nelson, H. Domian, D. LaCount, E. Robitz and K. Stein, published in Proceedings of the 1st International High-Level Radioactive Waste Management Conference, Las Vegas, NV, April 8-12 1990, Vol. 2, pp. 1406-1413, also available as Lawrence Livermore National Laboratory Report UCRL-99513, April 1989.
346. Americium (III) Carbonate Complexation in Aqueous Perchlorate Solution, H. Nitsche, E. Standifer and R. Silva, Lawrence Berkeley Laboratory, LBL-25118, published in "Radiochimica Acta Journal", Vol. 46, #4, pp. 185-189, April 1989.
347. The Influence of Penetrating Gamma Radiation on the Reaction of Simulated Nuclear Waste Glass in Tuff Groundwater, W. L. Ebert, Argonne National Laboratory, published in Proceedings of the American Ceramic Society Annual Meeting, Ceramics Transactions of Nuclear Waste Management III, Indianapolis, IN, April 23-27, 1989, G. B. Mellinger, Editor, Vol. 9, submitted to Lawrence Livermore National Laboratory under subcontract, April 1989.
348. Evaluation of the Austenitic Alloy 304L, 316L and Alloy 825 under Tuff Repository Conditions, J. Kass, presented at the Workshop on Corrosion of Nuclear Waste Containers, Winnipeg, Canada, February 9-10, 1988, Lawrence Livermore National Laboratory Report UCRL-101096, May 1989.
349. Evaluation of Copper, Aluminum Bronze, and Copper-Nickel for YMP Container Material, J. Kass, presented at the Workshop on Corrosion of Nuclear Waste Containers, Winnipeg, Canada, February 9-10, 1988, Lawrence Livermore National Laboratory Report UCRL-101097, May 1989.
350. Yucca Mountain Project Waste Package Design for MRS System Studies, T. Nelson, E. Russell, G. L. Johnson, R. Morissette, D. Stahl, L. LaMonica and G. Hertel, Lawrence Livermore National Laboratory Report UCID-21700, May 1989.

351. A Kinetic Model for Dissolution of Borosilicate Glass, W. L. Bourcier, K. G. Knauss and C. I. Merzbacher, published in Proceedings of the 6th International Symposium on Water-Rock Interaction, Malvern, UK, August 1989, Water-Rock Interaction-6, pp. 107-110, also available as Lawrence Livermore National Laboratory Report UCRL-101285, May 1989.
352. Yucca Mountain Project Container Fabrication, Closure, and Non-Destructive Evaluation Development Activities, E. Russell and T. Nelson, presented at the Workshop on Corrosion of Nuclear Waste Containers, Winnipeg, Canada, February 9-10, 1988, Lawrence Livermore National Laboratory Report UCRL-101183, June 1989.
353. The EO3/6 Software Package for Geochemical Modeling: Current Status, T. J. Wolery, K. J. Jackson, W. L. Bourcier, C. J. Bruton, B. E. Viani, K. G. Knauss and J. M. Delany, published in Proceedings of the American Chemical Society Conference, Los Angeles, CA, September 25-30, 1988, Vol. 416, pp. 104-116, also available as Lawrence Livermore National Laboratory Report UCRL-98729, June 1989.
354. Microstructural Examination of Oxidized Spent PWR Fuel by Transmission Electron Microscope, L. Thomas, R. Einziger, and W. Woodley, Pacific Northwest Laboratory Report PNL-SA-15796, submitted to Lawrence Livermore National Laboratory under subcontract, published in "Journal of Nuclear Materials" 166, 1989, pp. 243-251, June 1989.
355. A Lagrangian Reactive Transport Simulator with Multiple Paths and Stationary-States: Concepts, Implementation and Verification, R. Knapp, submitted to the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, (not published in Proceedings), Lawrence Livermore National Laboratory Report UCRL-100952, June 1989.
356. Prototype Engineered Barrier System Field Tests -- Progress Report, A. Ramirez, J. Beatty, T. Buscheck, R. Carlson, W. Daily, V. Latorre, K. Lee, W. Lin, N. Mao, J. Nitao, D. Towse, T. Ueng, D. Watwood and D. Wilder, published in Proceedings of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, Vol. 1, pp. 30-37, also available as Lawrence Livermore National Laboratory Report UCRL-101615, July 1989.
357. Dissolution and Precipitation Kinetics of Kaolinite: Initial Results at 80°C with Application to Porosity Evolution in a Sandstone, K. L. Nagy, C. I. Steefel, A. E. Blum and A. C. Lasaga, submitted to Lawrence Livermore National Laboratory under subcontract, also submitted to AAPG Memoir volume, "Prediction of Reservoir Quality through Chemical Modeling", July 1989.
358. Microwave Measurements of Water Vapor Partial Pressure at Temperatures up to 350°C, V. Latorre, published in Proceedings of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, Vol. 1, pp. 434-440, also available as Lawrence Livermore National Laboratory Report UCRL-101866, July 1989.
359. Current Status of Waste Package Designs for the Yucca Mountain Project, L. B. Ballou, submitted to the Institute of Nuclear Materials Management 30th Annual Meeting, Orlando, FL, July 9-12, 1989, (not published in Proceedings), Lawrence Livermore National Laboratory Report UCRL-100790, July 1989.
360. Laboratory Study of Fracture Healing in Topopah Spring Tuff - Implications for Near Field Hydrology, W. Lin, published in Proceeding of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, Vol. 1, pp. 443-447, also available as Lawrence Livermore National Laboratory Report UCRL-100624, July 1989.

361. Measurement of Soluble Nuclide Dissolution Rates From Spent Fuel, C. N. Wilson and W. J. Gray, Pacific Northwest Laboratory, PNL-SA-17120, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 27-30, 1989, Vol. 1, pp. 489-491, also submitted to Lawrence Livermore National Laboratory under subcontract, August 1989.
362. On the Infiltration of a Liquid Front In an Unsaturated, Fractured Porous Medium, J. Nitao and T. Buscheck, published in Proceedings of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, Vol. 1, pp. 381-397, also available as Lawrence Livermore National Laboratory Report UCRL-100777, August 1989.
363. An Investigation of Thermal Release of 14°C from PWR Spent Fuel Cladding, H. Smith and D. Baldwin, Pacific Northwest Laboratory Report PNL-SA-16606, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the American Nuclear Society Topical Meeting, Vol. 1, pp. 46-49, Las Vegas, NV, September 18-21, 1989.
364. Spent Fuel Drybath Oxidation Testing, R. Einziger, Pacific Northwest Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Vol. 1, pp. 38-40, Las Vegas, NV, September 18-21, 1989.
365. An Experimental Investigation of Copper-Zircaloy Interactions Under Potential Tuff Repository Conditions, H. D. Smith, WHC-EP-0173, Pacific Northwest Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, September 1989.
366. Statistical Model for Grain Boundary and Grain Volume Oxidation Kinetics in UO₂ Spent Fuel, R. B. Stout, H. Shaw and R. Einziger, submitted to the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, (not published in Proceedings), Lawrence Livermore National Laboratory Report UCRL-100859, September 1989.
367. High Frequency Electromagnetic Tomography, W. Daily, A. Ramirez, T. Ueng and V. Latorre, published in Proceedings of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Vol. 1, pp. 409-416, Las Vegas, NV, September 18-21, 1989, also available as Lawrence Livermore National Laboratory Report UCRL-101865, September 1989.
368. Dissolution Kinetics of a Simple Analogue Nuclear Waste Glass as a Function of pH, Time and Temperature, K. G. Knauss, W. L. Bourcier, K. D. McKeegan, C. I. Merzbacher, S. N. Nguyen, F. J. Ryerson, D. K. Smith and H. C. Weed, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 27-30, 1989, Vol. 1, pp. 371-381, also available as Lawrence Livermore National Laboratory Report UCRL-101112, September 1989.
369. A Kinetic Model for Borosilicate Glass Dissolution Based on the Dissolution Affinity of a Surface Alteration Layer, W. L. Bourcier, D. W. Peifer, K. G. Knauss, K. D. McKeegan, and D. K. Smith, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 27-30, 1989, Vol. 1, pp. 209-217, also available as Lawrence Livermore National Laboratory Report UCRL-101107, September 1989.
370. Modeling of Zircaloy Cladding Degradation Under Repository Conditions, L. Santanam, H. Shaw and B. Chin, published in Proceedings of the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, Vol. 1, pp. 41-45, also available as Lawrence Livermore National Laboratory Report UCRL-100211, September 1989.

371. Corrosion Product Identification and Relative Rates of Corrosion of Candidate Metals in an Irradiated Air-Steam Environment, D. T. Reed, V. Swayambunathan, Argonne National Laboratory and R. A. Van Konynenburg, Lawrence Livermore National Laboratory, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 27-30, 1989, Vol. 1, pp. 517-524, also available as Lawrence Livermore National Laboratory Report UCRL-102597, September 1989.
372. In-Situ Observation of the Alpha-Beta Cristobalite Transition Using High-Voltage Electron Microscopy, A. Meike and W. Glassley, published in Proceedings of the Materials Research Society Symposium, Boston, MA, November 27-30, 1989, Vol. 1, pp. 631-638, also available as Lawrence Livermore National Laboratory Report UCRL-101323, September 1989.
373. Selection Criteria for Container Materials at the Proposed Yucca Mountain High Level Nuclear Waste Repository, W. G. Halsey, presented at the National Association of Corrosion Engineers Conference 90, Las Vegas, NV, April 23-28, 1990, Lawrence Livermore National Laboratory Report UCRL-102285, October 1989.
374. Identification of Secondary Phases Formed During Unsaturated Reaction of UO₂ with EJ-13 Water, J. K. Bates, et al., Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Symposium, Vol. 1, pp. 499-506, Boston, MA, November 27-30, 1989.
375. Parametric Effects of Glass Reaction Under Unsaturated Conditions, J. K. Bates, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Symposium, Vol. 1, pp. 347-354, Boston, MA, November 27-30, 1989.
376. Comparison of the Layer Structure of Vapor Phase Leached SRL Glass by Use of AEM, B. Biwer, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Symposium, Vol. 1, pp. 255-263, Boston, MA, November 27-30, 1989.
377. The Reaction of Synthetic Nuclear Waste Glass in Steam and Hydrothermal Solution, W. L. Ebert and J. K. Bates, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Symposium, Vol. 1, pp. 339-346, Boston, MA, November 27-30, 1989.
378. Geochemical Modeling: An Integrated Approach to Nuclear Waste Disposal Issues, C. J. Bruton, B. E. Viani, W. L. Bourcier, K. J. Jackson and R. D. Aines, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 1, pp. 594-595, also available as Lawrence Livermore National Laboratory Report UCRL-102019, December 1989.
379. Vapor Hydration and Subsequent Leaching of Transuranic-Containing SRL and WV Glasses, J. K. Bates, W. L. Ebert and T. J. Gerding, Argonne National Laboratory, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 2, pp. 1095-1102, submitted to Lawrence Livermore National Laboratory under subcontract, December 1989.
380. Prototype Heater Test of the Environment Around a Simulated Waste Package, A. L. Ramirez, T. A. Buscheck, R. Carlson, W. Daily, V. R. Latorre, K. D. Lee, W. Lin, N. Mao, D. Towse, T. S. Ueng and D. Watwood, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 2, pp. 870-881, also available as Lawrence Livermore National Laboratory Report UCRL-101693, December 1989.

381. Geochemical Modeling of Radioactive Waste Glass Dissolution Using EQ3/6: Preliminary Results and Data Needs, W. L. Bourcier, Lawrence Livermore National Laboratory Report UCID-21869, January 1990.
382. The Use of Performance Assessments in Yucca Mountain Repository Waste Package Design Activities, L. J. Jardine, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 2, pp. 1284-1286, also available as Lawrence Livermore National Laboratory Report UCRL-102116, January 1990.
383. Container Material Performance Assessment Modeling and Failure Modes, W. L. Clarke, J. C. Farmer, W. G. Halsey and R. D. McCright, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 1, pp. 437-442, also available as Lawrence Livermore National Laboratory Report UCRL-101877, January 1990.
384. Thermal Calculations Pertaining to a Proposed Yucca Mountain Nuclear Waste Repository, G. Johnson and D. N. Montan, available as Lawrence Livermore National Laboratory Report UCRL-ID-103534, February 1990.
385. Calibration of a High Frequency Electromagnetic Measurement System Used in Geophysics, W. D. Daily, V. R. Latorre and H. M. Buettner, submittal to "IEEE Geoscience and Remote Sensing Journal", also available as Lawrence Livermore National Laboratory Report UCRL-102049, February 1990.
386. On the Movement of a Liquid Front in an Unsaturated, Fractured Porous Medium, Part I, J. Nitao and T. Buscheck, Lawrence Livermore National Laboratory Report UCID-21714, February 1990.
387. On the Movement of a Liquid Front in an Unsaturated, Fractured Porous Medium, Part II -- Mathematical Theory, J. Nitao, Lawrence Livermore National Laboratory Report UCID-21743, February 1990.
388. A Deformation and Thermodynamic Model for Hydride Precipitation Kinetics in Spent Fuel Cladding, R. B. Stout, submitted to the American Nuclear Society Topical Meeting, Focus '89, Nuclear Waste Isolation in an Unsaturated Zone, Las Vegas, NV, September 18-21, 1989, (not published in Proceedings), Lawrence Livermore National Laboratory Report UCRL-100860, March 1990.
389. Effects of Water Composition on the Dissolution Rate of UO₂ Under Oxidizing Conditions, C. N. Wilson and W. J. Gray, Pacific Northwest Laboratory Report PNL-SA-17574, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 2, pp. 1431-1436, April 1990.
390. Chemical Thermodynamics of Technetium II, J. A. Rard, prepared for inclusion in "Book of Chemical Thermodynamics of Technetium", Nuclear Energy Agency, Paris, France, Lawrence Livermore National Laboratory Report UCRL-102708, May 1990.
391. V-TOUGH - An Enhanced Version of the TOUGH Code for the Thermal and Hydrologic Simulation of Large-Scale Problems in Nuclear Waste Isolation, J. J. Nitao, Lawrence Livermore National Laboratory Report UCID-21954, May 1990.
392. Status of Integrated Performance Assessment of the Waste Packages and Engineered Barrier System, W. J. O'Connell, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 1, pp. 380-387, also available as Lawrence Livermore National Laboratory Report UCRL-102114, May 1990.

393. Natural Glass Analogues to Alteration of Nuclear Waste Glass: A Review and Recommendations for Further Study, W. F. McKenzie, Lawrence Livermore National Laboratory Report, UCID-21871, June 1990.
395. Results from NNWSI Series 3 Spent Fuel Dissolution Tests, C. N. Wilson, Pacific Northwest Laboratory, PNL-7170, submitted to Lawrence Livermore National Laboratory under subcontract, June 1990.
396. Preliminary Calculations of Release Rates of Tc-99, I-129, and Np-237 from Spent Fuel in a Potential Repository in Tuff, M. J. Apted, W. J. O'Connell, K. Lee, A. T. MacIntyre, T. -S. Ueng, and W. W. Lee, T. H. Pigford, Lawrence Berkeley Laboratory LBL-31069 UC-814, June 1990.
397. Use of pH STAT System in the Measurement of Zircaloy-4 Corrosion in the Presence of Fluoride, N. H. Uziemblo, Washington State University, thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in Materials Science and Engineering, submitted to Lawrence Livermore National Laboratory under subcontract, July 1990.
398. Engineered Barrier Systems and Canister Orientation Studies for the Yucca Mountain Project, Nevada, D. Wilder, published in Proceedings of the International Symposium on Unique Underground Structures, June 12-15, 1990, Denver, CO, Vol. 2, Chpt. 62, pp. 1-28, also available as Lawrence Livermore National Laboratory Report UCRL-JC-103105, July 1990.
399. Preliminary Selection Criteria for the Yucca Mountain Project Waste Package Container Material, W. G. Halsey, Lawrence Livermore National Laboratory Report UCRL-ID-104552, July 1990.
400. Secondary Phase Formation During Nuclear Waste Glass Dissolution, T. A. Abrajano, J. K. Bates, A. B. Woodland, J. P. Bradley, Argonne National Laboratory and W. L. Bourcier, Lawrence Livermore National Laboratory, published in "Clays and Clay Minerals," Vol. 30, #5, pp. 537-548, August 1990.
401. Preclosure Safety Analysis for a Prospective Yucca Mountain Conceptual Design Repository, C. W. Ma, Bechtel and L. J. Jardine, published in Proceedings of the International High Level Radioactive Waste Management Conference, April 8-12, 1990, Las Vegas, NV, Vol. 1, pp. 370-379, also available as Lawrence Livermore National Laboratory Report UCRL-102115, August 1990.
402. The Raman Spectra of Several Uranyl-Containing Minerals Using a Microprobe, B. M. Biwer, W. L. Ebert and J. K. Bates, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in "Journal of Nuclear Materials", Vol. 175, pp. 188-193, August 1990.
403. Spent Fuel Receipt Scenarios Study, L. B. Ballou, D. N. Montan, and M. A. Revelli, Lawrence Livermore National Laboratory Report UCID-21530, October 1990.
404. Calibration of Electrical Impedance Tomography for Imaging of Rock Core Samples, E. Owen and W. Daily, Lawrence Livermore National Laboratory Report UCRL-JC-103138, November 1990.
405. Chemical Thermodynamics of Technetium III, J. A. Rard, prepared for inclusion "Book of Chemical Thermodynamics of Technetium," Nuclear Energy Agency, Paris, France, Lawrence Livermore National Laboratory Report UCRL-103728, November 1990.
406. Results from NNWSI Series 2 Bare Fuel Dissolution Tests, C. N. Wilson, Pacific Northwest Laboratory, PNL-7169, submitted to Lawrence Livermore National Laboratory under subcontract, November 1990.

407. Corrosion Behavior of Copper-Base Materials in a Gamma-Irradiated Environment - Final Report, W. Yunker, WHC-EP-0188, Pacific Northwest Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, UCRL-21118, November 1990.
408. Zircaloy Cladding Degradation Under Repository Conditions, L. Santanam, H. Shaw and B. A. Chin, presented at the Fourth International Symposium on Environmental Degradation of Materials in Nuclear Power Systems, Jekyll Island, GA, August 6-10, 1989, Lawrence Livermore National Laboratory Report UCRL-100212, January 1991.
409. Prototype System Field Test -- Progress Report through November 1, 1988, J. Beatty, T. Buscheck, R. Carlson, W. Daily, V. Latorre, K. Lee, W. Lin, N. Mao, J. Nitao, A. Ramirez, D. Towse, T. Ueng, D. Watwood and D. Wilder, Lawrence Livermore National Laboratory Report UCID-21640, February 1991.
410. Standard Gibbs Free Energies of Formation at 30°C of Four Uranyl Silicates: Soddvite, Uranophane, Sodium Boltwoodite and Sodium Weeksite, S. N. Nguyen, R. J. Silva, H. C. Weed and J. E. Andrews, Jr., published in "Chemical Thermodynamics", Vol. 24, pp. 359-376, 1992, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106032, February 1991.
411. NNWSI Waste Form Testing at Argonne National Laboratory, Semi-Annual Report, January - June 1988, J. K. Bates, T. J. Gerding, W. L. Ebert, J. J. Mazer and B. M. Biwer, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractors Report UCRL-21060-88-1, February 1991.
412. Variation of Permeability with Temperature in Fractured Topopah Spring Tuff Samples, W. Lin, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 3, 1991, Vol. 2, pp. 988-993, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104765, February 1991.
413. Theory of Fracture-Matrix Flow Regimes in Unsaturated Porous Media, J. J. Nitao, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 3, 1991, Vol. 1, pp. 845-852, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104933, February 1991.
414. Microwave Measurement of the Water Content of Bentonite, V. R. Latorre and H. D. Glenn, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28- May 2, 1991, Vol. 1, pp. 578-582, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104768, February 1991.
415. Fabrication and Closure Development of Corrosion Resistant Containers for Nevada's Yucca Mountain High-Level Nuclear Waste Repository, E. W. Russell, T. A. Nelson, H. A. Domian, D. F. LaCount, E. S. Robitz and K. O. Stein, presented at the National Association of Corrosion Engineers Conference 90, Las Vegas, Nevada, April 23-28, 1990, Lawrence Livermore National Laboratory Report UCRL-102081, February 1991.
416. The Importance of Secondary Phases in Glass Corrosion, W. L. Ebert and J. K. Bates, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 89-97, March 1991.

417. Results from Long-Term Dissolution Tests Using Oxidized Spent Fuel, C. N. Wilson, Pacific Northwest Laboratory, Report PNL-SA-18263, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, November 26-29, 1990, Boston, MA, Vol. 212, pp. 197-204, March 1991.
418. Solution Thermodynamics at High Temperature. 1. Pr-Diglycolate Stability Constants from 23-95°C, P. M. Grant, P. Robouch, R. A. Torres, P. A. Baisden and R. J. Silva, published in "Journal of Physical Chemistry", Vol. 21, #3, pp. 213-227, 1992, also available as Lawrence Livermore National Laboratory Report UCRL-JC-105360, March 1991.
419. Actinide Transport in Topopah Spring Tuff: Pore Size, Particle Size and Diffusion, M. Buchholtz ten Brink, D. L. Phinney and D. K. Smith, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 641-648, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104530, March 1991.
420. Closure Development for High-Level Nuclear Waste Containers for the Tuff Repository Phase 1 Final Report, E. Robitz, Jr., M. McAninch and D. Edmonds, Babcock and Wilcox, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Contractor Report UCRL-15964, March 1991.
421. Overview of Chemical Modeling of Nuclear Waste Glass Dissolution, W. L. Bourcier, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 3-18, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104531, March 1991.
422. Effects of Heterogeneity on Actinide Distribution Rates in Tuff Rock, M. Buchholtz ten Brink, D. L. Phinney and D. K. Smith, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 1, pp. 161-168, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104754, April 1991.
423. Uncertainty Analysis of Preclosure Accident Doses for the Yucca Mountain Repository, C. W. Ma, D. D. Miller, S. J. Zavoshy and L. J. Jardine, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 2, pp. 1694-1703, also available as Lawrence Livermore National Laboratory Report UCRL-JC-107567, April 1991.
424. An Electrochemical Approach to Predicting Corrosion Performance of Container Materials, R. D. McCright, J. C. Farmer, and D. L. Fleming, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 2, pp. 940-944, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104949, April 1991.
425. Yucca Mountain Near Field Environment Considerations for Engineered Barrier System Design and Performance, D. G. Wilder, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 2, pp. 1366-1374, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104764, April 1991.
426. Dissolution Characteristics of Mixed UO₂ Powders in J-13 Water Under Saturated Conditions, E. Veleckis, J. C. Hoh and J. K. Bates, Argonne National Laboratory Report ANL-91/8, submitted to Lawrence Livermore National Laboratory under subcontract, April 1991.

427. Nonuniform Oxidation of LWR Spent Fuel in Air, L. E. Thomas, O. D. Slagle and R. E. Einziger, Pacific Northwest Laboratory Report PNL-SA-19332, submitted to Lawrence Livermore National Laboratory under subcontract, submitted to "Journal of Nuclear Materials", Vol. 184, pp. 117-126, 1991, April 1991.
428. Gaseous Release of Carbon-14: Why the High Level Waste Regulations Should be Changed, R. Van Konynenburg, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 1, pp. 313-319, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104763, April 1991.
429. Yucca Mountain Site Characterization Project Waste Package Plan, D. J. Harrison-Giesler, R. P. Morissette and L. J. Jardine, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 1, pp. 296-300, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106161, April 1991.
430. Spent Fuel Waste Form Characteristics: Grain and Fragment Size Statistical Dependence for Dissolution Response, R. B. Stout, H. Leider, H. Weed, S. Nguyen, W. McKenzie, S. Prussin, C. N. Wilson and W. J. Gray, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 1, pp. 103-111, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104931, May 1991.
431. Thermodynamic Studies of Zeolites: Clinoptilolite^a, G. K. Johnson, I. R. Tasker, R. Jurgens and P. A. G. O'Hare, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, submitted to "Journal of Chemical Thermodynamics", Vol. 23, pp. 475-484, May 1991.
432. Spent Fuel Waste Form Characteristics: Grain and Fragment Size Statistical Dependence for Oxidation Response, R. B. Stout, E. Kansa, R. E. Einziger, H. C. Buchanan and L. E. Thomas, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 1, pp. 112-119, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104932, May 1991.
433. Using a Systems Engineering Process to Develop Engineered Barrier System Design Concepts, L. Jardine and D. Short, published in Waste Management 91 Conference, Tucson, AZ, February 24-28, 1991, Vol. 1, pp. 221-225, also available as Lawrence Livermore National Laboratory Report UCRL-JC-107190, May 1991.
434. Laboratory Determined Suction Potential of Topopah Spring Tuff, W. Daily and W. Lin, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, Nevada, April 28-May 2, 1991, Vol. 1, pp. 583-588, also available as Lawrence Livermore National Laboratory Report UCRL-102127, May 1991.
435. Cost Estimate of High-Level Radioactive Waste Containers for the Yucca Mountain Project, E. W. Russell, LLNL, H. A. Domain, Babcock and Wilcox and A. A. Madson, Kaiser Engineers, Lawrence Livermore National Laboratory Report UCID-21863, June 1991.
436. Grain Boundary Oxidation of PWR Spent Fuel in Air, L. E. Thomas, Pacific National Laboratory, published in "Materials Characterization", 28, 1992, pp. 149-156, submitted to Lawrence Livermore National Laboratory under subcontract PNL-SA-19715, June 1991.

437. Effect of Ionizing Radiation on the Waste Package Environment, D. T. Reed, Argonne National Laboratory and R. Van Konynenburg, Lawrence Livermore National Laboratory, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, Vol. 2, pp. 1396-1403, June 1991.
438. An Elevated Temperature Titration Calorimeter, J. R. Smith, P. L. Zanonato and G. R. Choppin published in the "Journal of Chemical Thermodynamics", Vol. 24, #1, pp. 99-106, also available as Lawrence Livermore National Laboratory Report UCRL-CR-107905, June 1991.
439. Mineralogical, Textural and Compositional Data on the Alteration of Basaltic Glass from Kilauea, Hawaii to 300°C: Insights to the Corrosion of a Borosilicate Glass Waste-Form, D. K. Smith, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Boston, MA, November 27-29, 1990, Scientific Basis for Nuclear Waste Management XIV, Vol. 212, pp. 115-121, also available as Lawrence Livermore National Laboratory Report UCRL-JC-103739, June 1991.
440. Preliminary Calculations of Release Rates from Spent Fuel in a Tuff Repository, M. J. Apted, W. J. O'Connell, K. D. Lee, A. T. MacIntyre, T. S. Ueng, and T. H. Pigford, W. W. Lee, Lawrence Berkeley Laboratory, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28-May 2, 1991, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104832, July 1991.
441. Performance Implications of Waste Package Emplacement Orientation, D. Wilder, Lawrence Livermore National Laboratory Report UCID-21607, July 1991.
442. Container Materials for High-Level Nuclear Waste at the Proposed Yucca Mountain Site, R. D. McCright, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 249-260, also available as Lawrence Livermore National Laboratory Report UCRL-JC-103726, July 1991.
443. Mechanistic Interpretation of Glass Reaction: Input to Kinetic Model Development, J. Bates, W. Ebert, J. Bradley and W. Bourcier, Argonne National Laboratory, published in Proceedings of the International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 28- May 2, 1991, Vol. 1, pp. 720-727, also available as Lawrence Livermore National Laboratory Report UCRL-JC-107287, July 1991.
444. Corrosion of Copper-Based Materials in Irradiated Moist Air Systems, D. T. Reed, Argonne National Laboratory and R. Van Konynenburg, Lawrence Livermore National Laboratory, published in the Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 317-351, July 1991.
445. Modeling Hydrothermal Flow in Variably Saturated, Fractured, Welded Tuff During the Prototype Engineered Barrier System Field Test of the Yucca Mountain Project, T. A. Buscheck and J. J. Nitao, submitted to Flow and Transport Through Unsaturated Fractured Rock -- Related to High-Level Radioactive Waste Disposal, Tucson, AZ, January 7-10, 1991, Lawrence Livermore National Laboratory Report UCRL-JC-106521, July 1991.
446. Corrosion Models for Performance Assessment of High-Level Radioactive-Waste Containers, J. C. Farmer, G. E. Gdowski, R. D. McCright and H. S. Ahluwalia, published in "Nuclear Engineering and Design", Vol. 129, pp. 57-88, also available as Lawrence Livermore National Laboratory Report UCRL-JC-103517, July 1991.

447. Corrosion Considerations of High-Nickel Alloys and Titanium Alloys for High-Level Radioactive Waste Disposal Containers, G. E. Gdowski and R. D. McCright, presented at the CORROSION/91 meeting, Cincinnati, OH, March 11-15, 1991, Lawrence Livermore National Laboratory Report UCRL-JC-103744, July 1991.
448. The LLNL Thermochemical Data Base and Revised Data and File Format for the EO3/6 Package, J. M. Delany and S. R. Lundeen, Lawrence Livermore National Laboratory Report UCID-21658, July 1991.
449. The Effect of Dislocation Density on the Dissolution Rate of Quartz, A. Blum, Yale University, R. Yund, Brown University and A. Lasaga, Yale University, submitted to Lawrence Livermore National Laboratory under subcontract, Lawrence Livermore National Laboratory Report UCRL-101612, July 1991.
450. Leaching Action of EJ-13 Water on Unirradiated UO₂ Surfaces Under Unsaturated Conditions at 90°C: Interim Report, J. K. Bates, T. J. Gerding, E. Veleckis, D. J. Wronkiewicz and B. S. Tani, Argonne National Laboratory Report ANL-91/11, submitted to Lawrence Livermore National Laboratory under subcontract, July 1991.
451. Temperature Measurements from the Prototype Engineered Barrier System Field Test, W. Lin, A. L. Ramirez and D. Watwood, Lawrence Livermore National Laboratory Report UCRL-ID-104757, July 1991.
452. Remote Photoacoustic Measurements in Aqueous Solutions Using an Optical Fiber, R. E. Russo, D. Rojas, P. Robouch and R. J. Silva, published in "Review of Scientific Instruments", Vol. 61, Issue 12, 1990, pp. 3729-3732, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106029, July 1991.
453. In Situ Changes in the Moisture Content of Heated Welded Tuff Based on Thermal Neutron Measurements, A. L. Ramirez, R. C. Carlson and T. A. Buscheck, Lawrence Livermore National Laboratory Report UCRL-ID-104715, July 1991.
454. Prototype Engineered Barrier System Field Test - Final Report, T. Buscheck, R. Carlson, W. Daily, K. Lee, W. Lin, N. Mao, A. , T. Ueng, H. Wang and D. Watwood, Lawrence Livermore National Laboratory Report UCRL-ID-106159, August 1991.
455. The Sorption of Water on Obsidian and a Nuclear Waste Glass, W. L. Ebert, R. F. Hoburg, and J. K. Bates, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in "Physics and Chemistry of Glasses", Vol. 32, #4, pp. 133-137, August 1991.
456. Air Injection Field Tests to Determine the Effect of a Heat Cycle on the Permeability of Welded Tuff, K. D. Lee and T. S. Ueng, Lawrence Livermore National Laboratory Report UCRL-ID-105163, September 1991.
457. Chemical Thermodynamics of Technetium IV, J. A. Rard, prepared for inclusion in "Book of Chemical Thermodynamics of Technetium," Nuclear Energy Agency, Paris, France, Lawrence Livermore National Laboratory Report UCRL-JC-108178, September 1991.
458. Remote Measurements of Actinide Species in Aqueous Solutions Using an Optical Fiber Photoacoustic Spectrometer, R. Russo, P. Robouch and R. Silva, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 539-544, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106010, September 1991.

459. Development of High-Temperature UV-VIS-NIR Spectroscopy for the Measurement of Free Energies of Complexation at Elevated Temperatures, P. Robouch, P. Grant, R. Torres, P. Baisden and R. Silva, published in Proceedings of the Materials Research Society Symposium - Fall Meeting, Scientific Basis for Nuclear Waste Management XIV, Boston, MA, November 27-29, 1990, Vol. 212, pp. 545-549, also available as Lawrence Livermore National Laboratory Report UCRL-JC-103705, September 1991.
460. Thermocouple Psychrometer Measurements of In Situ Water Potential in Heated Welded Tuff, N. Mao, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 42-49, also available as Lawrence Livermore National Laboratory Report UCRL-ID-104729, October 1991.
461. Temperature Measurements from a Horizontal Heater Test in G-Tunnel, W. Lin, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 73-80, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106693, October 1991.
462. Progress in Assessing the Effect of Ionizing Radiation on the Anticipated Waste Package Environment at the Yucca Mountain Potential Repository Site, D. T. Reed, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 58-67, October 1991.
463. Status Report - Fabrication and Closure Development of Nuclear Waste Disposal Containers for the Yucca Mountain Project, H. A. Domian, E. S. Robitz, Jr., C. C. Conrardy, D. F. La Count, M. D. McAninch, R. L. Fish, Babcock and Wilcox and E. W. Russell, Lawrence Livermore National Laboratory, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 136-143, also available as Lawrence Livermore National Laboratory Report UCRL-JC-107985, October 1991.
464. Electrochemical Polarization Measurements on Pitting Corrosion Susceptibility of Nickel-Rich Alloy 825, R. D. McCright and D. L. Fleming, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 177-184, also available as Lawrence Livermore National Laboratory Report UCRL-JC-107065, October 1991.
465. Gap and Grain-Boundary Inventories Cs, Tc, and Sr in Spent Fuel LWR Fuel, W. J. Gray, D. M. Strachan and C. N. Wilson, Pacific Northwest Laboratory, submitted to Proceedings of the Materials Research Society Symposium - Fall Meeting, Nuclear Waste Management, Strasbourg, France, November 4-7, 1991, Vol. 257, pp. 353-360, submitted to Lawrence Livermore National Laboratory under subcontract, October 1991.
466. Dissolution Kinetics of UO₂ Flow-Through Samples on the UO₂ 00 Pellets and Polycrystalline Schoepite Samples in Oxygenated, Carbonate/Bicarbonate Buffer Solutions at 25°C, S. N. Nguyen, H. C. Weed, H. R. Leider and R. B. Stout, submitted to Proceedings of the Materials Research Society Symposium - Fall Meeting, Nuclear Waste Management, Strasbourg, France, November 4-7, 1991, Vol. 257, pp. 339-344, Lawrence Livermore National Laboratory Report UCRL-JC-107478, October 1991.
467. Stochastic Models for Predicting Pitting Corrosion Damage of HLRW Containers, G. A. Henshall, Lawrence Livermore National Laboratory Report UCRL-JC-107063, also published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 225-231, October 1991.

468. Candidate Container Materials for Yucca Mountain Waste Package Designs, R D. McCright, W. G. Halsey, G. E. Gdowski and W. L. Clarke, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 125-135, also available as Lawrence Livermore National Laboratory Report UCRL-JC-107066, October 1991.
469. Field Air Injection Test to Determine the Effect of a Heat Cycle on the Permeability of Welded Tuff, K. D. Lee and T. S. Ueng, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 68-72, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106703, October 1991.
470. The Impact of Episodic Nonequilibrium Fracture Matrix Flow On Geological Repository Performance, T. A. Buscheck, J. J. Nitao and D. A. Chesnut, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 312-323, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106759, October 1991.
471. Diffusive Barrier Simplified Analysis - Design and Sensitivity Applications, T. S. Ueng and W. J. O'Connell, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 277-284, also available as Lawrence Livermore National Laboratory Report UCRL-JC-104913, October 1991.
472. Progress in Evaluating the Corrosion of Candidate HLW Container Metals in Irradiated Air-Steam Mixtures, D. T. Reed, Argonne National Laboratory and R. A. Van Konynenburg, Lawrence Livermore National Laboratory, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 185-192, also available as Lawrence Livermore National Laboratory Report UCRL-JC-108307, October 1991.
473. Engineered Barrier System and Waste Package Design Concepts for a Potential Geological Repository at Yucca Mountain, D. W. Short, L. J. Jardine and D. J. Ruffner, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 113-124, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106916, October 1991.
474. The Impact of Episodic Nonequilibrium Fracture Matrix Flow On Repository Performance at the Potential Yucca Mountain Site, T. A. Buscheck, J. J. Nitao and D. A. Chesnut, submitted to Proceedings of the Materials Research Society Symposium - Fall Meeting, Nuclear Waste Management, Strasbourg, France, November 4-7, 1991, Vol. 257, pp. 607-616, Lawrence Livermore National Laboratory Report UCRL-JC-107920, October 1991.
475. Effects of an Oxidizing Atmosphere in a Spent Fuel Packaging Facility, R. E. Einziger, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 88-99, October 1991.
476. High-Temperature Spectroscopy for Nuclear Waste Applications, P. M. Grant, P. Robouch, R. A. Torres and R. J. Silva, presented at the Methods & Applications of Radioanalytical Chemistry II Conference, Kona, HI, April 21-17, 1991, Lawrence Livermore National Laboratory, UCRL-JC-106028, October 1991.
477. Crack-Growth-Rate Testing of Candidate Waste Container Materials, J. Y. Park, W. J. Shack, D. R. Diercks, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 163-169, October 1991.

478. Corrosion Models for Predictions of Performance of High-Level Radioactive-Waste Containers, J. C. Farmer, G. E. Gdowski and R. D. McCright, Lawrence Livermore National Laboratory Report UCID-21756, November 1991.
479. Dissolution and Precipitation of Kaolinite at 80°C and pH3: The Dependence on Solution Saturation State, K. L. Nagy, A. E. Blum and A. C. Lasaga, Yale University, submitted to Lawrence Livermore National Laboratory under subcontract, published in the "American Journal of Science", pp. 649-686, November 1991.
480. Parametric Effects on Glass Reaction in the Unsaturated Test Method, A. B. Woodland, J. K. Bates and T. J. Gerding, Argonne National Laboratory Report ANL-91/36, submitted to Lawrence Livermore National Laboratory under subcontract, November 1991.
481. Repository Relevant Testing Applied to the Yucca Mountain Project, J. K. Bates, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, not published, November 1991.
482. Survey of Degradation Modes of Four Nickel-Chromium-Molybdenum Alloys, G. E. Gdowski, Lawrence Livermore National Laboratory Report UCRL-ID-108330, November 1991.
483. Characterization of Spent Fuel Approved Testing Material -- ATM-105, R. J. Guenther, D. E. Blahnik, T. K. Campbell, U. P. Jenquin, J. E. Mendel, L. E. Thomas and C. K. Thornhill, Pacific Northwest Laboratory Report PNL-5109-105, submitted to Lawrence Livermore National Laboratory under subcontract, November 1991.
484. Characterization of Spent Fuel Approved Testing Material -- ATM-104, R. J. Guenther, D. E. Blahnik, U. P. Jenquin, J. E. Mendel, L. E. Thomas and C. K. Thornhill, Pacific Northwest Laboratory Report PNL-5109-104, submitted to Lawrence Livermore National Laboratory under subcontract, November 1991.
485. Dissolution and Precipitation Kinetics of Gibbsite at 80°C and pH3: The Dependence on Solution Saturation, K. L. Nagy, and A. C. Lasaga, submitted to Lawrence Livermore National Laboratory under subcontract, November 1991.
486. The Hydration of Borosilicate Waste Glass in Liquid Water and Steam at 200°C, W. L. Ebert, J. K. Bates, Argonne National Laboratory and W. L. Bourcier, published in "Waste Management", Vol. 11, pp. 205-221, submitted to Lawrence Livermore National Laboratory under subcontract, December 1991.
487. AEM Analyses of SRL 131 Glass Altered as a Function of Sa/V, J. J. Mazer, J. K. Bates, B. M. Biwer and C. Bradley, Argonne National Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, submitted to Proceedings of the Materials Research Society Symposium - Fall Meeting, Nuclear Waste Management, Strasbourg, France, November 4-7, 1991, Vol. 257, pp. 73-81, December 1991.
488. Physical Limits on Steam Generation by Radioactive Decay Heat, D. A. Chesnut, Lawrence Livermore National Laboratory Report UCRL-ID-108153, December 1991.
489. Thermal Performance of a Buried Nuclear Waste Storage Container Storing a Hydride Mix of PWR and BWR Spent Fuel Rods, G. Johnson, Lawrence Livermore National Laboratory Report UCID-21414, Rev. 1, December 1991.
490. The Impact of Burnup and Fission Gas Release Distributions of the U.S. LWR Spent Fuel Inventory on the Selection of Spent Fuel Test Materials for the U.S. Geologic Repository Project, M. E. Cunningham, W. F. Lyon, C. E. Beyer, R. J. Guenther, J. E. Mendel and G. B. Mellinger, submitted to Lawrence Livermore National Laboratory under subcontract, December 1991.

491. Estimating the Time for Dissolution of Spent Fuel Exposed to Unlimited Water, H. R. Leider, S. N. Nguyen, R. B. Stout and H. C. Weed, Lawrence Livermore National Laboratory Report UCRL-ID-107289, December 1991.
492. Microstructural Analyses of LWR Spent Fuels at High Burnup, L. E. Thomas, C. E. Beyer and L. A. Charlot, Pacific Northwest Laboratory, published in the "Journal of Nuclear Materials", 188, 1992, pp. 80-89, PNL-SA-20092, March 1992.
493. Demands Placed on Waste Package Performance Testing and Modeling by Some General Results of Reliability Analysis, D. A. Chesnut, published in Proceedings of the Focus '91, Nuclear Waste Packaging Conference, September 29-October 2, 1991, Las Vegas, NV, pp. 217-223, October 1991, also available as Lawrence Livermore National Laboratory Report UCRL-JC-106758, October 1991, and also published in Proceedings of the 3rd International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 12-16, 1992, pp. 994-1002, April 1992.
494. Oxidation of Spent Fuel in Air at 175°C to 195°C, (previously titled "Ceramographic Determination of Spent Fuel Oxidation Rate"), R. E. Einziger, L. E. Thomas, and H. C. Buchanan Pacific Northwest Laboratory, and R. B. Stout, Lawrence Livermore National Laboratory, published in Proceedings of the 3rd International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 12-16, 1992, pp. 1449-1457, April 1992.
495. The Implications of Episodic Nonequilibrium Fracture-Matrix Flow on Site Suitability and Total System Performance, J. J. Nitao, T. A. Buscheck, and D. A. Chesnut, published in Proceedings of the 3rd International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 12-16, 1992, pp. 279-296, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-109216, April 1992.
496. The Impact of Thermal Loading on Repository Performance at Yucca Mountain, T. A. Buscheck and J. J. Nitao, published in Proceedings of the 3rd International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 12-16, 1992, pp. 1003-1017, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-109232, April 1992.
497. Dissolution Rates of As-Received and Partially Oxidized Spent Fuel, W. J. Gray and L. E. Thomas Pacific Northwest Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, published in Proceedings of the 3rd International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 12-16, 1992, pp. 1458-1464, April 1992.
498. Characterizing the Altered Zone at Yucca Mountain: The Beginning of a Testing Strategy, D. A. Chesnut, published in Proceedings of the 3rd International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 12-16, 1992, pp. 1026-1039, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-109231, April 1992.
499. Colloid Formation During Waste Form Reaction: Implications for Nuclear Waste Disposal, J. K. Bates, J. P. Bradley, A. Teetsov, C. Bradley, Argonne National Laboratory and M. Buchholtz ten Brink, Lawrence Livermore National Laboratory, submitted to "Science", Vol. 256, pp. 649-651, April 1992.
500. Modeling Pitting Corrosion Damage of High-Level Radioactive-Waste Containers Using a Stochastic Approach, G. A. Henshall, published in the "Journal of Nuclear Materials", Vol. 256, pp. 649-651, May 1992, also available as Lawrence Livermore National Laboratory Report UCRL-JC-109020, April 1992.

501. Photoacoustic Spectroscopy and the Effect of Amplified Spontaneous Emission (ASE), G. Klunder, R. E. Russo, Lawrence Berkeley Laboratory and R. E. Silva, Lawrence Livermore National Laboratory, submitted to "Analytical Chemistry", Vol. 64, No. 20, pp. 2429-2433, Lawrence Livermore National Laboratory Report UCRL-JC-110174, April 1992.
502. Diffusion Releases Through One and Two Finite Planar Zones from a Nuclear Waste Package, T. S. Ueng and W. J. O'Connell, Lawrence Livermore National Laboratory Report UCRL-ID-109215, July 1992.
503. Chemical Thermodynamics of Technetium V, J. A. Rard, prepared for inclusion in "Book of Chemical Thermodynamics of Technetium", Nuclear Energy Agency, Paris, France, Lawrence Livermore National Laboratory Report UCRL-JC-109638, May 1992.
504. Modeling Ion Exchange in Clinoptilolite Using EQ3/6 Geochemical Modeling Code, B. E. Viani and C. J. Bruton, submitted to 7th International Symposium Water Rock Interaction, Park City, UT, July 13-18, 1992, Vol. 1, pp. 73-77, Lawrence Livermore National Laboratory Report UCRL-JC-109952, June 1992.
505. Parametric Study of LWR Spent Fuel Dissolution Kinetics, W. J. Gray, Pacific Northwest Laboratory, H. R. Leider and S. A. Steward, Lawrence Livermore National Laboratory, submitted to "Journal of Nuclear Materials", Vol. 190, pp. 46-52, Lawrence Livermore National Laboratory Report UCRL-JC-110160, June 1992.
506. Free Energy Dependence of Albite Dissolution Kinetics at 80°C, pH 8.8, T. E. Burch, K. Nagy and A. C. Lasaga, Yale University, submitted to "Chemical Geology", Vol. 105, pp. 137-162, July 1992.
507. Reverse/Reengineering an Existing Database, S. R. Lundeen, submitted to "Inquire Ingres" for the Ingres World '92 conference (not published in the Proceedings), Lawrence Livermore National Laboratory Report UCRL-JC-111325, September 1992.
508. EQ3/6. A Software Package for Geochemical Modeling of Aqueous Systems: Package Overview and Installation Guide, Version 7.0, T. J. Wolery, Lawrence Livermore National Laboratory Report UCRL-MA-110662-PT-1, November 1992.
509. Dissolution Kinetics of Heulandite at pH 2-12 and 25°C, K. Ragnarsdottir, Bristol University, submitted to Lawrence Livermore National Laboratory under subcontract, submitted to Geochimica Cosmochimica Acta, Vol. 57, Num. 11, pp. 2439-2449, November 1992.
510. Effects of Fission Products on Air-Oxidation of LWR Spent Fuel, L. E. Thomas, R. E. Einziger, and H. C. Buchanan, Pacific Northwest Laboratory, submitted to Lawrence Livermore National Laboratory under subcontract, submitted to the "Journal of Nuclear Materials", Vol. 201, pp. 310-319, November 1992.
511. EQ3NR. A Computer Program for Geochemical Aqueous Speciation-Solubility Calculations: Theoretical Manual, User's Guide and Related Documentation, Version 7.0, T. J. Wolery, Lawrence Livermore National Laboratory Report, UCRL-MA-110662-PT-III, December 1992.
512. Modeling Pitting Corrosion Damage of High-Level Radioactive-Waste Containers, with Emphasis on the Stochastic Approach, G. A. Henshall, Lawrence Livermore National Laboratory Report, UCRL-ID-111624, December 1992.
513. EOPT, A Data File Preprocessor for the EQ3/6 Software Package: User's Guide and Related Documentation, Version 7.0, S. A. Daveler, and T. J. Wolery, Lawrence Livermore National Laboratory Report, UCRL-MA-110662-PT-II, December 1992.

514. EO6. A Computer Program for Reaction Path Modeling of Aqueous Geochemical Systems: Theoretical Manual, User's Guide and Related Documentation, Version 7.0, T. J. Wolery and S. A. Daveler, Lawrence Livermore National Laboratory Report, UCRL-MA-110662-PT-IV, December 1992.
515. Large Scale In Situ Heater Tests for Hydrothermal Characterization at Yucca Mountain, T. A. Buscheck, D. G. Wilder and J. J. Nitao, published in Proceedings of the 4th International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 26-30, 1993, pp. 1854-1872, April 1993, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-112445, January 1993.
516. Single Hole In Situ Thermal Probe for Hydrothermal Characterization at Yucca Mountain, G. Danko and T. A. Buscheck, published in Proceedings of the 4th International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 26-30, 1993, pp. 975-985, April 1993, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-112825, January 1993.
517. Kinematics and Thermodynamics of Non-Stoichiometric Oxidation Phase Transitions in Spent Fuel, R. B. Stout, E. J. Kansa and A. M. Wijesinghe, published in Proceedings of the Material Research Society meeting in Boston, MA on November 30-December 4, 1992, Vol. 294, pp. 25-34, Lawrence Livermore National Laboratory Report, UCRL-JC-110678, January 1993.
518. Alternative Strategies - A Means for Saving Money and Time on Yucca Mountain, D. G. Wilder, published in Proceedings of the 4th International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 26-30, 1993, pp. 1263-1270, April 1993, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-111652, February 1993.
519. The Analysis of Repository-Heat-Driven Hydrothermal Flow at Yucca Mountain, T. A. Buscheck and J. J. Nitao, published in Proceedings of the 4th International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 26-30, 1993, pp. 847-867, April 1993, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-112444, February 1993.
520. Selection of Candidate Container Materials for the Conceptual Waste Package Design for a Potential High Level Nuclear Waste Repository at Yucca Mountain, R. Van Konynenburg, W. G. Halsey, W. L. Clarke, R. D. McCright (LLNL) and G. E. Gdowski (KMI, Inc.), Lawrence Livermore National Laboratory Report, UCRL-ID-112058, February 1993.
521. Scientific Investigation Plan for Initial Engineered Barrier System Field Tests, W. Lin, Lawrence Livermore National Laboratory Report, UCRL-ID-112036, February 1993.
522. Drift Emplaced Waste Package Thermal Response, D. Ruffner, G. Johnson, E. Platt, J. Blink (LLNL) and T. Doering (M&O), published in Proceedings of the 4th International High Level Radioactive Waste Management Conference, Las Vegas, NV, April 26-30, 1993, pp. 538-543, April 1993, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-112435, February 1993.
523. Engineered Barrier Environment, Yucca Mountain, D. G. Wilder, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 3, pp. 1179-1187, also available as Lawrence Livermore National Laboratory Report UCRL-JC-110677, June 1993.
524. Preliminary Near Field Environment Report, Vol. I and II, D. G. Wilder, Scientific Editor, Lawrence Livermore National Laboratory Report UCRL-LR-107476, June 1993.

525. CNGBOCHS: An Integrated Ingres-Email-Interleaf System for Processing Change Requests Associated with the GEMBOCHS Database and EO3/6, S. A. Daveler, S. R. Lundeen and J. W. Johnson, Lawrence Livermore National Laboratory Report UCRL-MA-111991, June 1993.
526. Collinear Photothermal Deflection Spectroscopy of Liquid Samples at Varying Temperature, J. S. Spear (Lawrence Berkeley Laboratory), R. J. Silva (Lawrence Livermore National Laboratory), G. L. Klunder and R. E. Russo, (Lawrence Berkeley Laboratory), published in "Applied Spectroscopy", Vol. 47, Num. 10, pp. 1580-1584, July 1993.
527. The Role of Multiple Barriers in Assuring Waste Package Reliability, R. M. Bradford, Lawrence Livermore National Laboratory Report UCRL-ID-114739, August 1993.
528. Chemical and Mineralogical Concerns for the Use of Man-Made Materials in the Post-Emplacement Environment, A. Meike, UCRL-ID-113383, August 1993.
529. Technical Basis and Programmatic Requirements for Large Block Testing of Coupled Thermal-Mechanical-Hydrological-Chemical Processes, W. Lin, Lawrence Livermore National Laboratory Report UCRL-ID-112834, September 1993.
530. Coupled Hydro-Geochemical Processes and Their Significance for Yucca Mountain Site Characterization, W. Glassley, published in the Proceedings of the FOCUS '93 meeting, Las Vegas, NV, September 26-29, 1993, pp. 122-126, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114783, September 1993.
531. Formation of Colloids from Introduced Materials in the Post-Emplacement Environment: A Report on the State of Understanding, A. Meike and C. Wittwer (BRGM), published in the Proceedings of the FOCUS '93 meeting, Las Vegas, NV, September 26-29, 1993, pp. 95-102, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114782, September 1993.
532. Thermodynamic and Structural Characteristics of Cement Minerals at Elevated Temperature, C.J. Bruton, A. Meike, B. E. Viani, S. Martin and B. L. Phillips, published in the Proceedings of the FOCUS '93 meeting, Las Vegas, NV, September 26-29, 1993, pp. 150-156, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114116, September 1993.
533. Technical Basis and Programmatic Requirements for Laboratory Study of the Hydrological Properties of the Near Field Environment, W. Lin, Lawrence Livermore National Laboratory Report UCRL-ID-112432, October 1993.
534. Post-Closure Performance Assessment of Waste Packages for the Yucca Mountain Project, W. O'Connell, T. Ueng and L. Lewis, Lawrence Livermore National Laboratory Report UCRL-ID-111979, October 1993.
535. Kinematics and Thermodynamics Across a Propagating Non-Stoichiometric Oxidation Phase Front in Spent Fuel Grains, R. Stout, E. Kansa and A. Wijesinghe, presented at a joint ASME, SES and ASCE meeting on Micromechanics of Random Media, Charlottesville, VA, June 6-9, 1993, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-112821, October 1993.
536. Technical Basis and Programmatic Requirements for Engineered Barrier System Field Tests, W. Lin, Lawrence Livermore National Laboratory Report UCRL-ID-112433, October 1993.

537. The Impact of Repository Heat on Thermo-Hydrological Performance at Yucca Mountain, T. A. Buscheck and J. J. Nitao, published in the Proceedings of the FOCUS '93 Meeting, Las Vegas, NV, September 26-29, 1993, pp. 127-144, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114791, October 1993.
538. Testing Geochemical Modeling Codes Using New Zealand Hydrothermal Systems C. J. Bruton, W. E. Glassley and W. L. Bourcier, published in the Proceedings of the FOCUS '93 meeting, Las Vegas, NV, September 26-29, 1993, pp. 240-245, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114798, October 1993.
539. Introduced Materials and Colloid Formation: A Report on the Current State of Knowledge, A. Meike and C. Wittwer (BRGM), published in the Proceedings of the Materials Research Society meeting in Boston, MA on November 29 to December 3, 1993, Vol. 333, pp. 783-789, Lawrence Livermore National Laboratory Report UCRL-JC-114122, November 1993.
540. Cement Minerals at Elevated Temperature: Thermodynamic and Structural Characteristics, C. J. Bruton, B. L. Phillips, A. Meike, S. Martin and B. E. Viani, published in the Proceedings of the Materials Research Society meeting in Boston, MA on November 29 to December 3, 1993, Vol. 333, pp. 327-334, Lawrence Livermore National Laboratory Report UCRL-JC-115796, November 1993.
541. Science and Licensing: Let's Get Off The Collision Course, R. A. Van Konynenburg, published in the Proceedings of the Materials Research Society meeting in Boston, MA on November 29 to December 3, 1993, Vol. 333, pp. 183-191, Lawrence Livermore National Laboratory Report UCRL-JC-115734, November 1993.
542. Modeling of UO₂ Aqueous Dissolutions Over a Wide Range of Conditions, S. A. Steward and H. C. Weed, published in the Proceedings of the Materials Research Society meeting in Boston, MA on November 29 to December 3, 1993, Vol. 333, pp. 409-416 Lawrence Livermore National Laboratory Report UCRL-JC-114118, November 1993.
543. The Impact of Repository Heat on Hydrological Behavior at Yucca Mountain, T. A. Buscheck and J. J. Nitao, submitted to "RADWASTE" Magazine, Vol. 1, No. 2, pp. 71-76, April 1994, also available as Lawrence Livermore National Laboratory Report UCRL-JC-115798, January 1994.
544. The Testing of Thermal-Mechanical-Hydrological-Chemical Processes Using a Large Block, W. Lin, D. G. Wilder, J. A. Blink, S. C. Blair, T. A. Buscheck, D. A. Chesnut, W. E. Glassley, K. Lee and J. J. Roberts, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 1938-1945, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114776, January 1994.
545. Rationale for Determining Spent Fuel Acquisitions for Repository Testing, S. C. Marschman, R. E. Einziger (Pacific Northwest Laboratories) and R. B. Stout (Lawrence Livermore National Laboratory), published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 2, pp. 1074-1079, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116357, January 1994.
546. Electrical Properties of Topopah Spring Tuff as a Function of Saturation, J. J. Roberts and W. Lin, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2112-2120, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114784, January 1994.

547. On the Benefits of an Integrated Nuclear Complex for Nevada, J. A. Blink and W. G. Halsey, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol 1, pp. 18-25, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114786, January 1994.
548. Dispersivity in Heterogeneous Permeable Media, D. A. Chesnut, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol 4, pp. 1822-1841, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114790, January 1994.
549. Integrated Modeling of Near Field and Engineered Barrier System Processes, A. Lamont and J. Gansemer, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 3, pp. 1195-1201, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-115230, January 1994.
550. Identifying Significant Uncertainties in Thermally Dependent Processes for Repository Performance Analysis, J. Gansemer and A. Lamont, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2197-2206, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116315, January 1994.
551. Performance Assessment Model of a Single Waste Package, W. J. O'Connell, T-S. Ueng and L. C. Lewis, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 3, pp. 1188-1194, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-114699, January 1994.
552. Constraints on the Affinity Term for Modeling Long-Term Glass Dissolution Rates, W. L. Bourcier, S. A. Carroll and B. L. Phillips, published in the Proceedings of the Materials Research Society meeting in Boston, MA on November 29 to December 3, 1993, Vol. 333, pp. 507-512, Lawrence Livermore National Laboratory Report UCRL-JC-116132, January 1994.
553. Experimental Investigation of Hydrous Pyrolysis of Diesel Fuel and the Effect of Pyrolysis Products on Performance of the Candidate Nuclear Waste Repository at Yucca Mountain, Nevada, K. J. Jackson and S. A. Carroll, published in the Proceedings of the Materials Research Society meeting in Boston, MA on November 29 to December 3, 1993, Vol. 333, pp. 841-847, Lawrence Livermore National Laboratory Report UCRL-JC-116352, January 1994.
554. What Do We Mean By a "Cold Repository?", W. G. Halsey, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2183-2188, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116147, January 1994.
555. The Effect of Fuel Type in Unsaturated Spent Fuel Tests, P.A. Finn, M. Gong, J. K. Bates, J.W. Emery and J.C. Hoh (Argonne National Laboratory), published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 2, pp. 1080-1087, submitted to Lawrence Livermore National Laboratory under subcontract, January 1994.
556. Results of Drip Tests on Sludge-Based and Actinide-Doped Glasses, J. K. Bates and E.C. Buck, Argonne National Laboratory, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 2, pp. 1088-1101, submitted to Lawrence Livermore National Laboratory under subcontract, January 1994.

557. Interlaboratory Comparison of UO₂ Dissolution Rates, W. J. Gray (Pacific Northwest Laboratories), S. A. Steward (Lawrence Livermore National Laboratory), J.C. Tait and D.W. Shoesmith (Whiteshell Laboratories), published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2597-2601, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-115356, February 1994.
558. Limitations on Scientific Prediction and How They Could Affect Repository Licensing, R. Van Konynenburg, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 1, pp. 285-295, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116530, February 1994.
559. Comparison of Uranium Dissolution Rates from Spent Fuel and Uranium Dioxide, S. A. Steward and W. Gray (Pacific Northwest Laboratories), published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2602-2608, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-115355, February 1994.
560. In Situ Photothermal Deflection Spectroscopy of Uranium Dioxide Dissolution, J. D. Rudnicki and R. Russo, Lawrence Berkeley Laboratory, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2609-2615, submitted to Lawrence Livermore Laboratory under subcontract, February 1994.
561. Evaluation of Thermo-Hydrological Performance in Support of the Thermal Loading Systems Study, T. A. Buscheck, J. J. Nitao (Lawrence Livermore National Laboratory) and S. Saterlie (M&O/TRW Environmental Safety Systems, Inc.), published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 2, pp. 592-610, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-115352, February 1994.
562. The Impact of Buoyant Gas-Phase Flow and Heterogeneity on Thermo-Hydrological Behavior at Yucca Mountain, T. A. Buscheck and J. J. Nitao, published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2450-2474, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-115351, February 1994.
563. Progress in Understanding the Structure and Thermodynamics of Calcium Hydrates, A. Meike (Lawrence Livermore National Laboratory), M. Onofrei (Whiteshell Laboratories), C. J. Bruton and B. E. Viani (LLNL), published in the Proceedings of the 5th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 22-26, 1994, Vol. 4, pp. 2590-2596, May 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116358, February 1994.
564. Photothermal Deflection Spectroscopy Investigations of Uranium Dioxide Oxidation, J. D. Rudnicki, R. Russo (Lawrence Berkeley Laboratory) and D.W. Shoesmith (Whiteshell Laboratories), submitted to the Journal of Electroanalytical Chemistry, Vol. 372, pp. 63-74, submitted to Lawrence Livermore National Laboratory under subcontract, February 1994.
565. Behavior of Carbon-14 in Waste Packages for Spent Fuel in a Tuff Repository, R. Van Konynenburg, submitted to "Waste Management, Vol. 14, pp. 363-383, 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-ID-117262, March 1994.

- 565a. On Integrating Modeling Software for Application to Total System Performance Assessment, L. C. Lewis and M. Wilson (Sandia National Laboratories), submitted to the American Nuclear Society Spectrum '94 Conference, Atlanta, GA, August 14-19, 1994, also available as Lawrence Livermore National Laboratory Report UCRL-JC-115613, May 1994.
566. User's Guide to the Yucca Mountain Integrating Model (YMIM), J. Gansemer and A. Lamont, Lawrence Livermore National Laboratory Report, UCRL-MA-116446, June 1994.
567. Stochastic Modeling of the Influence of Environment on Pitting Corrosion Damage of Radioactive-Waste Containers, G.A. Henshall, published in the Proceedings of the 18th International Symposium on the Scientific Basis for Nuclear Waste Management (and page numbers not available at this time), Kyoto, Japan, October 23-27, 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116435, June 1994.
568. A Large Block Heater Test for High Level Nuclear Waste Management, W. Lin, D. G. Wilder, J. A. Blink, S. C. Blair, T. A. Buscheck, R. S. Glass, W. E. Glassley, K. Lee, R. D. McCright, M. W. Owens, and J. J. Roberts, published in the Proceedings of the 18th International Symposium on the Scientific Basis for Nuclear Waste Management (volume and page numbers not available at this time), Kyoto, Japan, October 23-27, 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116431, July 1994.
569. Groundwater Flux, Travel Time, and Radionuclide Transport, D.A. Chesnut, published in the Proceedings of the 18th International Symposium on the Scientific Basis for Nuclear Waste Management (volume and page numbers not available at this time), Kyoto, Japan, October 23-27, 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116436, August 1994.
570. Field-Based Tests of Geochemical Modeling Codes Using New Zealand Hydrothermal Systems, C. J. Bruton, W. E. Glassley, and W. L. Bourcier, Lawrence Livermore National Laboratory Report, UCRL-ID-118009, August 1994.
571. Preliminary Waste Form Characteristics Report, Version 1.0, R. B. Stout and H. R. Leider, Lawrence Livermore National Laboratory Report, UCRL-ID-108314, written October, 1991, published December 1994.
572. The Importance of Thermal Loading Conditions to Waste Package Performance at Yucca Mountain, T. A. Buscheck and J. J. Nitao, published in the Proceedings of the 18th International Symposium on the Scientific Basis for Nuclear Waste Management (volume and page numbers not available at this time), Kyoto, Japan, October 23-27, 1994, also available as Lawrence Livermore National Laboratory Report, UCRL-JC-116429, October 1994.
573. Aqueous Dissolution Rates of Uranium Oxides, S. A. Steward and E. T. Mones, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119118, October 1994.
574. Integrated Corrosion Facility for Long-Term Testing of Candidate Materials for High-Level Radioactive Waste Containment, J. C. Estill, E. N. C. Dalder, G. E. Gdowski, and R. D. McCright, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-118689, October 1994.

575. Alteration of Spent Fuel Matrix Under Unsaturated Water Conditions, P. A. Finn, J. K. Bates, E. C. Buck, D. J. Wronkiewicz, J. C. Hoh, and S. F. Wolf (Argonne National Laboratory), published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), submitted to Lawrence Livermore National Laboratory under subcontract, October 1994.
576. Reaction Progress Pathways for Glass and Spent Fuel Under Unsaturated Conditions, J. K. Bates, P. A. Finn (Argonne National Laboratory), W. Bourcier, and R. B. Stout (Lawrence Livermore National Laboratory), published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119115, October 1994.
577. Synthesis of Tobermorite: A Cement Phase Expected Under Repository Conditions, S. I. Martin, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119131, November 1994.
578. Effect of Areal Power Density and Relative Humidity on Corrosion Resistant Container Performance, J. D. Gansemer and A. Lamont, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119119, November 1994.
579. A Comparison of Creep Strains Predicted from Constitutive Equations for Zircaloy-Clad Spent Fuel Rods, R. S. Rosen and W. J. O'Connell, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119209, November 1994.
580. Permeability of Fractured Tuff as Functions of Temperature and Confining Pressure, J. J. Roberts and W. Lin, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119116, November 1994.
581. The Large Block Test. A Progress Report, W. Lin, D. G. Wilder, J. A. Blink, P. A. Berge, S. C. Blair, V. Brugman, R. Carlson, K. Lee, M. W. Owens, R. Pletcher, N. Rector, J. J. Roberts, D. Ruddle, S. Sommer, T. S. Ueng, and J. Wagoner, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119106, November 1994.
582. Measuring Geomechanical Properties of Topopah Spring Tuff at the 1-Meter Scale, S. C. Blair and P. A. Berge, published in the Proceedings of the 6th International High-Level Radioactive Waste Management Conference, Las Vegas, NV, May 1-5, 1995, (volume and page numbers not available at this time), also available as Lawrence Livermore National Laboratory Report, UCRL-JC-119121, November 1994.

MISCELLANEOUS REPORTS IN PROGRESS:

Survey of the Degradation Modes of Candidate Materials for High-Level Radioactive Waste Disposal Containers, D. W. Vinson, W. M. Nutt, and D. B. Bullen (Iowa State University), prepared for R. D. McCright, August 1994.

Ceramic Package Fabrication for YMP Nuclear Waste Disposal, K. Wilfinger, UCRL-ID-118660, August 1994.

FY 1991 to 1994 Report on Spent Fuel Dissolution Studies, W. J. Gray and C. N. Wilson (Pacific Northwest Laboratories), August 1994.

Behavior of Spent Fuel Under Unsaturated Conditions, P. A. Finn, J. C. Hoh, J. K. Bates, and S. F. Wolf (Argonne National Laboratories), October 1994.

A Progress Report for the Large Block Test of the Coupled Thermal-Mechanical-Hydrological-Chemical Processes, W. Lin, D. G. Wilder, P. A. Berge, S. C. Blair, S. Boyd, V. Brugman, P. Burklund, T. A. Buscheck, Y. Chang, D. A. Chesnut, W. Daily, R. S. Glass, W. Glassley, L. Hall, C. Landram, K. H. Lee, J. Nitao, J. Noring, M. W. Owens, R. Pletcher, A. Ramirez, N. Rector, T. Reitter, J. J. Roberts, D. Ruddle, S. Sommer, D. Trummer, T. S. Ueng, and J. Wagoner, and, R. J. Glass and M. Nicholl (Sandia National Laboratories), and G. Danko (University of Nevada Reno), UCRL-ID-119101, November 1994.

EQ3/6 Software Test and Verification Report 9/94, T. Kishi, UCRL-ID-119140, November 1994.

Hydrological Property Measurements of Topopah Spring Tuff, J. J. Roberts and W. Lin, UCRL-ID-119033, November 1994.

Progress Report on Pre-Test Calculations for the Large Block Test, K. H. Lee, UCRL-ID-118699, November 1994.

Updated Candidate List for Engineered Barrier Materials, R. D. McCright, UCRL-ID-119442, December 1994.

A Heated Large Block Test for High Level Nuclear Waste Mnanagement, W. Lin, D. G. Wilder, J. A. Blink, S. C. Blair, T. A. Buscheck, W. Glassley, K. H. Lee, M. W. Owens, J. J. Roberts, UCRL-JC-116418, December 1994.

Corrosion of Candidate Materials in Lake Rotokawa Geothermal Exposure, J. C. Estill and R. D. McCright, December 1994.

Engineered Materials Characterization Report for the Yucca Mountain Site Characterization Project, Volumes 1, 2, & 3, R. A. Van Konynenburg, R. D. McCright (Lawrence Livermore National Laboratory), A. K. Roy (B & W Fuel Company), and D. A. Jones (University Nevada Reno), UCRL-ID-119564, December 1994.

JEWEL: A Graphical-User Interface for Generating Custom GEMBOCHS Thermodynamic Datafiles for use with Geochemical Modeling Software, J. W. Johnson and S. R. Lundeen, January 1995.

GEMBOCHS Thermodynamic Datafiles for use with the EQ3/6 Software Package, J. W. Johnson and S. R. Lundeen, January 1995.

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