**Stable Isotope Customer List
and Summary of Shipments—FY 1976
(July 1, 1975–September 30, 1976)**

MASTER

OAK RIDGE NATIONAL LABORATORY

OPERATED BY UNION CARBIDE CORPORATION FOR THE ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

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Contract No. W-7405-eng-26

CHEMICAL TECHNOLOGY DIVISION

STABLE ISOTOPE CUSTOMER LIST
AND SUMMARY OF SHIPMENTS ~~9~~ FY 1976
(July 1, 1975 - September 30, 1976)

Compiled by

W. C. Davis

Date Published - April 1977

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MASTER

OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37830
operated by
UNION CARBIDE CORPORATION
for the
ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION

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STABLE ISOTOPE CUSTOMER LIST
AND SUMMARY OF SHIPMENTS - FY-1976
(July 1, 1975 - September 30, 1976)

W. C. Davis

INTRODUCTION

This compilation is published as an aid to those concerned with the separation and sale of stable isotopes. The information is divided into four sections:

1. Alphabetical list of domestic and foreign customers, showing the stable isotopes purchased during the fiscal year;
2. Alphabetical list of isotopes, cross-referenced to customer numbers and divided into domestic and foreign categories;
3. Alphabetical list of states and countries, cross-referenced to customer numbers and indicating geographical concentrations of isotope users;
4. Tabulation of the shipments, quantities, and dollars for domestic, foreign, and project categories for each isotope, with the totals for loaned isotopes shown at the end of the table.

Other reports published in this series are:

ORNL/TM-1928
ORNL/TM-2038
ORNL/TM-2401
ORNL/TM-2747
ORNL/TM-3146
ORNL/TM-3543
ORNL/TM-3987
ORNL/TM-4693
ORNL/TM-5089

We wish to thank S. E. Curtis of the Business Systems Department of the ORGDP Computing Technology Center for his assistance in developing the tabulations.

I. ALPHABETICAL LIST OF CUSTOMERS, WITH CONTACTS AND ISOTOPES PURCHASED

A. DOMESTIC

- 1 Abilene Christian College
Box 8208
Abilene, Texas

44Ca, 63Cu, 65Cu, 54Fe, 58Ni, 62Ni,
66Zn, 68Zn
- 2 Accu-Labs Research, Inc.
9170 West 44th Avenue
Wheat Ridge, Colorado 80033

208Pb, 77Se
- 3 Aerojet Nuclear Company
550 Second Street
P. O. Box 1845
Idaho Falls, Idaho 83401

152Gd, 156Gd, 158Gd, 176Lu, 142Nd,
143Nd, 144Nd, 102Pd, 104Pd, 110Pd,
99Ru, 100Ru, 152Sm, SS, Tgs
- 4 Alabama, University of
Medical Center
1919 Seventh Avenue, South
Birmingham, Alabama 35486

57Fe
- 5 Alaska, University of
College, Alaska 99735

108, 118, 29Si, 30Si
- 6 Aldrich Chemical Company, Inc.
940 West St. Paul Avenue
Milwaukee, Wisconsin 53233

7Li
- 7 Allied Chemical Corporation
Central Accounts Payable
P. O. Box 2251R
Morristown, N. J. 07960

6Li
- 8 Allied-General Nuclear Services
BNFP-Osborn Road (P. O. Box 847)
Barnwell, South Carolina 29812

155Gd, 150Nd, 147Sm
- 9 Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

108, 136Ba, 40Ca, 42Ca, 48Ca, 63Cu,
161Dy, 54Fe, 191Ir, 193Ir, 6Li, 25Mg,
20Mg, 95Mo, 140Nd, 150Nd, 58Ni,
64Ni, 204Pb, 205Pb, 207Pb, 104Pd,
106Pd, 110Pd, 123Sh, 144Sm, 119Sn,
66Sr, SS, 128Te, Tgs, 203Tl, 205Tl,
170Yb, 66Zn, 90Zr
- 10 Arizona, University of
Post Office Drawer 4100
Tucson, Arizona 85721

95Mo
- 11 Atomergic Chemetals Corporation
100 Fairchild Avenue
Plainview, N. Y. 11803

198Hg, 7Li
- 12 Atomics International Division
North American Rockwell Corporation
Post Office Box 309
Canoga Park, California 91304

54Fe, 56Fe, 58Fe, 92Mo, 94Mo,
95Mo, 96Mo, 97Mo, 98Mo, 100Mo,
Tgs
- 13 Auburn University
Auburn, Alabama 36830

6Li
- 14 B. Freudenberg, Inc.
50 Rockefeller Plaza
New York, NY 10020

108
- 15 Ball State University
Muncie, Indiana 47306

114Cd, 24Mg, SS, Tgs
- 16 Bartol Research Corporation
Swarthmore, Pennsylvania 19081

SS
- 17 Bell Telephone Laboratories
Murray Hill, New Jersey 07971

106Cd, 50Cr, 63Cu, 56Fe, 57Fe,
157Gd, 73Ge, 113In, 60Ni, 192Os,
104Pd, 107Ru, 121Ru, 77Se, 208Tl,
114Sn, 33, Tgs, 100W, 64Zn, 66Zn
- 18 Brookhaven National Laboratory
Upton, Long Island, New York 11973

81Br, 42Ca, 44Ca, 46Ca, 48Ca, 113Cd,
142Ce, 37Cl, 156Dy, 164Er, 166Er,
168Er, 56Fe, 57Fe, 72Ge, 76Ge,
76Ge, 201Hg, 6Li, 7Li, 24Mg, 92Mo,
94Mo, 96Mo, 140Nd, 150Nd, 64Ni,
204Pb, 205Pb, 207Pb, 208Pb, 104Pd,
106Pd, 108Pd, 109Pd, 110Pd, 111Pd,
77Se, 29Si, 30Si, 147Sm, 148Sm,
64Sr, SS, 120Te, 124Te, 97Tl, 99Tl,
201Tl, 182W, 184W, 186W, 170Yb,
172Yb, 174Yb, 66Zn, 70Zn
- 19 California Institute of Technology
1201 E. California Boulevard
Pasadena, California 91109

107Ag, 109Ag, 136Ba, 40Ca, 42Ca,
44Ca, 46Ca, 48Ca, 113Cd, 179Hf,
41K, 176Lu, 58Ni, 190Os, 87Rb, 86,
180W
- 20 California State College
5151 State College Drive
Los Angeles, California 90032

108

- 21 California, University of
400 Sproul Hall
Berkeley, California 94720
65Cu, 58Fe
- 22 California, University of
Davis, California 95616
48Ca, SS, 203Tl
- 23 California, University of
P. O. Box CA
Irvine, California 92664
SS
- 24 California, University of
405 Hilgard Avenue
Los Angeles, California 90024
160Gd, 175Lu, 140Nd, 152Sm, 124Te,
171Yb, 176Yb
- 25 California, University of
900 Veteran Avenue
Los Angeles, California 90024
35Cl, 63Cu, 20Mg, 61Ni, 62Ni, 124Te,
203Tl, 205Tl
- 26 California, University of
Post Office Box 112
Administration Building
Riverside, California 92502
113Cd
- 27 California, University of
San Francisco Medical Center
San Francisco, California 94122
113Cd
- 28 California, University of
Santa Barbara, California 93106
57Fe, 140Nd, 203Pb
- 29 California, University of
Lawrence Berkeley Laboratory
Berkeley, California 94701
48Ca, 50Cr, 154Dy, 20Mg, 92Mo,
208Pb, 104Pd, 106Pd, 192Pt, 194Pt,
196Pt, 96Ru, 98Ru, 82Se, 30Si,
140Sm, 152Sm, 154Sm, SS, Tgs, 96Ti,
182W, 176Yb, 176Yb
- 30 California, University of
Lawrence Livermore Laboratory
Box 808
Livermore, California 94550
138Ba, 40Ca, 110Cd, 90Cr, 52Cr, 63Cu,
65Cu, 163Dy, 54Fe, 56Fe, 71Ga,
70Ge, 72Ge, 176Hf, 176Lu, 92Mo,
94Mo, 95Mo, 96Mo, 97Mo, 98Mo,
100Mo, 150Nd, 58Ni, 60Ni, 160Os,
162Os, 164Os, 192Os, 208Pb, 207Pb,
208Pb, 185Re, 80Se, 82Se, 84Sr,
SS, Tgs, 96Ti, 90Zr
- 31 California, University of
Los Alamos Scientific Laboratory
Post Office Box 1663
Los Alamos, New Mexico 87544
108, 118, 108Cd, 113Cd, 114Cd, 116Cd,
37Cl, 50Cr, 52Cr, 151Eu, 153Eu,
54Fe, 56Fe, 57Fe, 58Fe, 156Gd,
70Ge, 176Hf, 176Lu, 92Mo, 94Mo,
176Lu, 92Mo, 95Mo, 97Mo, 140Nd,
58Ni, 60Ni, 61Ni, 62Ni, 64Ni,
160Os, 162Os, 192Os, 208Pb, 207Pb,
207Pb, 208Pb, 96Ru, 104Ru, 74Se,
80Se, 82Se, 203Tl, 86Sr, 88Sr, SS,
126Te, Tgs, 180W, 182W, 66Zn, 68Zn,
90Zr, 91Zr, 92Zr
- 32 Carnegie Institution of Washington
Washington, D. C. 20008
143Nd, 147Sm
- 33 Carnegie-Mellon University
5000 Forbes
Pittsburgh, Pennsylvania 15213
40Ca, 65Cu, 57Fe, 7Li, 96Mo,
100Mo, 60Ni, 96Ru, 88Sr, Tgs,
96Ti, 66Zn, 90Zr, 91Zr, 92Zr, 94Zr
- 34 Case Western Reserve University
2220 Circle Drive
Cleveland, Ohio 44106
Tgs
- 35 Catholic University of America
104 McCort-Ward Hall
Washington, D. C. 20017
35Cl, 37Cl, 200Hg, 6Li, SS, Tgs
- 36 Chicago, University of
1160 East 55th Street
Chicago, Illinois 60615
107Ag, 63Cu, 160Er, 96Mo
- 37 Cincinnati, University of
Cincinnati, Ohio 45221
170Er, 121Sb, 119Sn, 125Te
- 38 Clark University
Worcester, Massachusetts 01610
99Ru, 149Sm
- 39 College of William and Mary
Williamsburg, Virginia 23105
208Pb, 84Sr, SS, 90Zr
- 40 Colorado State University
Fort Collins, Colorado 80521
43Ca
- 41 Colorado, University of
Boulder, Colorado 80302
138Ba, 79Br, 112Cd, 114Cd, 116Cd,
140Ce, 50Cr, 54Fe, 115In, 95Mo,
96Mo, 97Mo, 98Mo, 152Nd, 144Nd,
146Nd, 148Nd, 150Nd, 58Ni, 60Ni,
208Pb, 207Pb, 200Pb, 104Pd, 106Pd,
108Pd, 110Pd, 102Ru, 121Sb, 123Sb,
76Se, 77Se, 112Sn, 116Sn, 124Sn,
87Sr, 88Sr, SS, 126Te, 128Te, Tgs,
96Ti, 98Ti

- 42 Columbia University
Box 6, Low Library
New York, New York 10027

109Ag, 79Br, 81Br, 57Fe, 87Rb,
SS
- 43 Commercial Testing and Engineering Company
Instrumental Analysis Division
14335 West 44th Avenue
Golden, Colorado 80401

10B, 135Ba, 111Cd, 53Cr, 65Cu, 6Li,
62Ni, 123Sb, 76Se, 117Sn, 86Sr,
50Ti, 183W, 67Zn, 91Zr
- 44 Connecticut, University of
Physical Sciences Bldg.
Storrs, Connecticut 06268

56Fe, 33S, SS
- 45 Consumers Power Company
Palisades Nuclear Plant
Route 2, Box 154
Covert, Michigan 49043

7Li
- 46 Cornell University
Ithaca, New York 14850

58Fe, 20Hg
- 47 Cyclotron Corporation
950 Gilman Street
Berkeley, California 94710

Tgs
- 48 Denimex Development Corporation
P. O. Box 1, 78 North State Road
Briarcliff Manor, New York 10510

204Pb, 208Pb
- 49 Dresser Atlas
Division of Dresser Industries, Inc.
P. O. Box 1407
Houston, Texas 77001

108
- 50 Du Pont de Nemours and Company, E. I.
Savannah River Plant
Aiken, South Carolina 29801

106Cd, 37Cl, 50Cr, 54Cr, 65Cu,
57Fe, 201Hg, 203Hg, 6Li, 97Mo,
100Mo, 61Ni, 204Pb, 206Pb, 77Se,
28Si, 30Si, 117Sn, 47Ti, 67Zn,
70Zn, 91Zr
- 51 Duke University
Durham, North Carolina 27706

50Cr, 57Fe, 6Li, 7Li, 90Mo, 66Ni,
77Se, 116Sn, 86Sr, SS, Tgs
- 52 Eagle-Picher Industries, Inc.
Miami, Oklahoma 74354

7Li
- 53 Eagle-Picher Industries, Inc.
P. O. Box 47, C and Porter Streets
Joplin, Mo 64801

7Li
- 54 Eastern Kentucky University
Richmond, Kentucky 40475

57Fe
- 55 Efratom California, Inc.
3303 Harbor Blvd.
Costa Mesa, California 92626

85Rb, 87Rb
- 56 Emory University
Atlanta, Georgia 30322

SS
- 57 Esso Research and Engineering Company
P. O. Box 642
Linden, New Jersey 07036

57Fe
- 58 Florida A + M University Foundation, Inc.
P. O. Box 224
Tallahassee, Florida 32307

35Cl, 37Cl, 50Cr, 52Cr, 53Cr, 63Cu,
65Cu, 54Fe, 58Ni, 60Ni, 64Ni, 34S,
28Si, 30Si, 86Sr, 47Ti, 70Zn,
90Zr, 92Zr
- 59 Florida Power and Light Company
P. O. Box 956
Miami, Florida 33101

7Li
- 60 Florida State University
Tallahassee, Florida 32306

10B, 63Cu, 65Cu, 150Dy, 161Dy,
167Er, 91K, 143Nd, 58Ni, 60Ni, 62Ni,
194Pt, 195Pt, 196Pt, 198Pt, 82Se,
SS, 171Yb, 66Zn, 91Zr, 94Zr
- 61 Florida, University of
Gainesville, Florida 32601

11B, 28Si, 86Sr, SS, Tgs
- 62 Ford Motor Company
21500 Oakwood Boulevard
Dearborn, Michigan 48124

106Cd, 152Gd
- 63 Gallard-Schlesinger Chemical Manufacturing Corp.
Carle Place
Long Island, New York 11514

57Fe, SS
- 64 General Electric Company
Post Office Box 254
San Jose, California 95103

107Ag, 140Ce, 50Cr, 151Eu, 54Fe,
62Ni, 112Sn, 116Sn, SS, Tgs, 169Yb

- 65 General Electric Company
Development Center
P. O. Box 8
Schenectady, New York 12301
108
- 66 General Ionex Corporation
25 Hayward Street
Ipswich, Massachusetts 01938
108
- 67 Georgia Institute of Technology
225 North Avenue, N.W.
Atlanta, Georgia 30332
140Nd, 150Nd, 205Pb, 190Pt, 190Pt
- 68 Georgia State College
33 Glimmer Street, S. W.
Atlanta, Georgia 30303
110Cd, 100Gd, 0Li
- 69 Georgia, University of
Athens, Georgia 30601
20Mg, 92Mo, 207Pb, 32S, 20Si, 30Si,
Tgs, 92Zr
- 70 Gulf Energy and Environmental Systems
P. O. Box 608
San Diego, California 92112
118, 60Ni, Tgs
- 71 Harshaw Chemical Company
Division of Kewanee Oil Company
6801 Cochran Road
Solon, Ohio 44139
0Li, 7Li
- 72 Harvard University
Cambridge, Massachusetts 02138
SS, Tgs
- 73 Hewlett Packard Company
1501 Page Mill Road
Palo Alto, California 94304
07Rb
- 74 Howard University
2401 6th Street
Washington, D. C. 20001
03Cu, 199Hg
- 75 ICN-NBCo
26261 Miles Road
Cleveland, Ohio 44126
130Ba, 0K, 100Pd, 07Rb
- 76 Illinois, University of
203 Administration Building E
Urbana, Illinois 61803
10B, 135Ba, 70Br, 81Br, 0Ca, 0Ca,
110Cd, 53Cr, 03Cu, 05Cu, 05Fe, 57Fe,
202Hg, 0Li, 20Mg, 95Mo, 97Mo, 01Ni,
33S, 123Sb, 30Si, 117Sn, SE, 205Tl,
00Zn
- 77 Indiana University
Bloomington, Indiana 47401
109Ag, 10B, 11B, 02Ca, 0Ca, 100Cd,
54Fe, 54Fe, 30K, 00K, 01K, 0Li,
20Mg, 25Mg, 20Mg, 190Os, 192Os,
208Pb, 102Pd, 100Pd, 103Pd, 100Pd,
103Re, 107Re, 30Si, 150Sm, SS, Tgs,
90Zr
- 78 Indiana University of Pennsylvania
Indiana, Pennsylvania 15701
108
- 79 Intelcom Rad Tech
P. O. Box 80817
San Diego, California 92138
0Li
- 80 International Business Machines Corp.
Post Office Box 218
Yorktown Heights, New York 10598
57Fe
- 81 Iowa State University
Ames, Iowa 50010
10B, 135Ba, 70Br, 81Br, 0Ca, 110Cd,
136Ce, 53Cr, 101Dy, 107Er, 151Eu,
71Ga, 100Gd, 130La, 97Mo, 153Nd,
192Os, 77Se, 149Sm, 201Tl, 173Yb
- 82 Iowa, University of
Iowa City, Iowa 52240
57Fe, SS
- 83 Johns Hopkins University
Baltimore, Maryland 21218
113Cd, 103Dy, 57Fe, 7Li, SS
- 84 Kansas State University
Manhattan, Kansas 66502
153Eu, Tgs
- 85 Kansas, University of
Lawrence, Kansas 66044
07Rb
- 86 Kentucky, University of
Lexington, Kentucky 40506
204Hg, 20Mg, 20Mg, 192Os, 190Pt,
20Si, SS, Tgs, 06Ti, 50Ti
- 87 Mallinckrodt Chemical Works
3600 N. Second Street
St. Louis, Missouri 63160
00Mo, 70Se
- 88 Marquette University
1120 W. Michigan Street
Milwaukee, Wisconsin 53233
02Ni

- 89 Maryland, University of
College Park, Maryland 20742

107Ag, 110Cd, 200Pb, 102Pd, 110Pd,
96Ru, 20Si, 112Sn, 120Sn, 88Sr,
120Te, Tgs
- 90 Massachusetts General Hospital
Isotope Laboratory
Boston, Massachusetts 02114

90Ca, 90Ca
- 91 Massachusetts Institute of Technology
Box 69
Cambridge, Massachusetts 02139

135Ba, 130Ba, 52Cr, 150Dy, 160Er,
150Gd, 70Ge, 190Hg, 90K, 91K, 92Mo,
150Nd, 60Ni, 62Ni, 100Os, 200Pb,
100Pd, 87Rb, 140Sm, 88Sr, 87Sr, SS,
Tgs, 90Ti, 170Yb, 88Zn, 92Zr
- 92 Massachusetts, University of
Amherst, Massachusetts 01002

Tgs
- 93 McMinnville Public Schools
McMinnville High School
1500 North Baker Street
McMinnville, Oregon 97128

92Ca
- 94 Medi-Physics, Inc.
5855 Christie Avenue
Emeryville, California 94608

112Cd, 202Hg, 122Te, 120Te, 88Zn
- 95 Memphis State University
Memphis, Tennessee 38111

108
- 96 Metrologic Instruments, Inc.
143 Harding Avenue
Beltsville, New Jersey 08030

110Cd, SS
- 97 Michigan State University
East Lansing, Michigan 48823

110Cd, 111Cd, 112Cd, 113Cd, 114Cd, 115Cd,
57Fe, 91K, 6Li, 92Mo, 90Mo, 140Nd,
140Nd, 200Pb, 207Pb, 24S, 150Sm,
110Sn, 88Sr, 87Sr, SS, 122Te, 120Te,
120Te, 120Te, 130Te, 170Yb
- 98 Michigan, University of
Ann Arbor, Michigan 48104

35Cl, 50Fe, 57Fe, 60Ga, 71Ga,
90Mo, 142Nd, 140Nd, 140Nd, 140Nd,
200Pb, 200Pb, 200Pb, 140Sm, 140Sm,
150Sm, 152Sm, 154Sm, 88Sr, 88Sr,
SS, 120Te, Tgs, 87Zn
- 99 MicroMatter Company
.197 - 34th Avenue East
Seattle, Washington 98102

92Ca, 90Ca, 52Cr, 50Cr, 65Cu, 70Ge,
70Ge, 61Ni, 200Pb, 100Pd, 110Pd,
88Se, 140Sm, 88Zn
- 100 Microfoils
P. O. Box 283
Argonne, Illinois 60439

90Mo, 200Pb, 200Pb, 100Pd, 102Pt,
100Pt, 100Pt, 110Sn, SS, Tgs, 102Zn
- 101 Mill-Power Supply Company
P. O. Box 1339
Charlotte, North Carolina 28201

7Li
- 102 Minnesota, University of
402 Morrill Hall
Minneapolis, Minnesota 55455

107Ag, 90Ca, 113Cd, 161Dy, 163Dy,
57Fe, 200Hg, 200Hg, 60Ni, 200Pb,
100Pd, 100Pd, 32S, 20Si, 20Si, 140Sm,
Tgs
- 103 Missouri, University of
Columbia, Missouri 65201

108
- 104 Montefiore Hospital
E. 210th Street and Bainbridge Avenue
Bronx, New York 10467

130Ba, 92Ca
- 105 Mount Sinai Medical Center
4300 Alton Road
Miami Beach, Florida 33139

112Cd, SS, Tgs, 207Tl, 88Zn
- 106 National Bureau of Standards
Connecticut Avenue and Van Ness Street, N.W.
Washington, D. C. 20234

118, 135Ba, 111Cd, 113Cd, 37Cl, 57Fe,
157Gd, 200Hg, 90Mo, 140Nd, 62Ni,
207Pb, 77Se, 117Sn, SS, 120Te, Tgs,
87Zn, 88Zn
- 107 New England Nuclear Corporation
575 Albany Street
Boston, Massachusetts 02118

107Ag, 132Ba, 90Ca, 100Cd, 100Co,
50Cr, 160Er, 151Eu, 50Fe, 50Fe,
113In, 140Nd, 62Ni, 120Sn, SS, 125Te,
120Te, 120Te, 207Tl
- 108 New Hampshire, University of
Durham, New Hampshire 03824

33S
- 109 New Mexico State University
Las Cruces, New Mexico 88003

6Li, Tgs
- 110 New Mexico, University of
Albuquerque, New Mexico 87103

87Rb, 88Sr

- 111 New York University
Washington Square
New York, New York 10016
200Hg, 207Pb, SS, Tgs
- 112 New York, State University College
Oneonta, New York 13820
Tgs
- 113 New York, State University of
1400 Washington Avenue
Albany, New York 12203
35Cl, 37Cl, 24Mg
- 114 New York, State University of
3435 Main Street
Buffalo, New York 14214
142Ce, 155Gd, 176Lu
- 115 New York, State University of
Research Foundation
Stony Brook, New York 11790
10B, 11B, 40Ca, 54Fe, 56Fe, 6Li,
24Mg, 208Pb, 87Rb, 126Te, 128Te,
129Te, Tgs
- 116 New York, State University of
Research Foundation
Binghamton, New York 13901
37Cl
- 117 North Carolina A and T State University
Greensboro, North Carolina 27411
161Dy, 57Fe
- 118 North Carolina State University
P. O. Box 5935
Raleigh, North Carolina 27607
41K, 30Si, SS, Tgs
- 119 North Dakota State University
College of Pharmacy
Fargo, North Dakota 58102
57Fe, 67Zn
- 120 Northeast Utilities Service Company
P. O. Box 270
Hartford, Connecticut 06101
7Li
- 121 Northern Illinois University
Box 185
DeKalb, Illinois 60115
145Nd
- 122 Northern States Power Company
414 Nicollet Mall
Minneapolis, Minnesota 55401
7Li
- 123 Northrop Corporation
Electro-Mechanical Division
500 E. Orangethorpe Avenue
Anaheim, California 92801
6Li
- 124 Northwestern University
619 Clark Street
Evanston, Illinois 60201
SS
- 125 Notre Dame, University of
Notre Dame, Indiana 46556
80Se, 82Se, 144Sm, 147Sm, 148Sm,
149Sm, 150Sm, 152Sm, 154Sm, 128Te,
130Te, Tgs, 172Yb
- 126 Oak Ridge Associated Universities
Post Office Box 117
Oak Ridge, Tennessee 37830
63Cu, 59Ni, Tgs
- 127 Ohio State University
190 North Oval Drive
Columbus, Ohio 43210
6Li, SS, Tgs
- 128 Ohio State University
Research Foundation
1314 Kinnear Road
Columbus, Ohio 43212
70Ge, 6Li, 50Ti
- 129 Ohio University
Athens, Ohio 45701
SS
- 130 Omaha Public Power District
836 Electric Building
1623 Harney Street
Omaha, Nebraska 68102
7Li
- 131 Oregon Graduate Center
19600 Northwest Walker Road
Beaverton, Oregon 97005
135Ba, 138Ba, 66Ti, 68Ti, 69Ti
- 132 Oregon State University
Corvallis, Oregon 97330
96Ru, 100Ru
- 133 Oregon, University of
Eugene, Oregon 97403
SS
- 134 Pacific Northwest Laboratory
Richland, Washington 99352
146Nd, 148Nd, 96Ru, 152Sm, 176Yb

- 135 Pennsylvania State University
University Park, Pennsylvania 16802
57Fe
- 136 Pennsylvania, University of
3025 Walnut Street
Philadelphia, Pennsylvania 19104
108, 118, 57Fe, 6Li, 24Mg, Tgs
- 137 Phillips Laboratories
345 Scarborough Road
Briarcliff Manor, New York 10510
41K, SS
- 138 Pittsburgh, University of
Pittsburgh, Pennsylvania 15213
42Ca, 160Er, 69Ga, 6Li, 24Mg,
180Os, 192Os, 190Pt, 193Pt, 196Pt,
199Pt, Tgs
- 139 Portland General Electric Company
621 S.W. Alder Street
Portland, Oregon 97205
7Li
- 140 Princeton University
James Forrestal Campus
Princeton, New Jersey 08540
42Ca, 63Cu, 65Cu, 54Fe, 25Mg, 205Pb,
104Pd, 106Pd, 108Pd, 28Si, 64Zn
- 141 Purdue University
Pharmacy Annex
Lafayette, Indiana 47907
190Hg, 199Hg, 200Hg, 201Hg, 92Mo,
180Os, 106Pd
- 142 Rensselaer Polytechnic Institute
110 8th Street
Troy, New York 12181
56Fe, 58Fe, 6Li, 145Nd, 101Ru,
102Ru, 104Ru, SS, Tgs, 171Yb
- 143 Rhode Island, University of
Narragansett Marine Laboratory
Kingston, Rhode Island 02881
204Pb, 207Pb
- 144 Rochester, University of
575 Elwood Avenue
Rochester, New York 14627
40Ca, 110Cd, 64Cr, 56Fe, 204Hg, 39K,
6Li, 180Os, 192Os, 206Pb, 192Pt,
194Pt, 196Pt, 198Pt, 76Se, 78Se,
80Se, 28Si, 29Si, 86Sr, 88Sr, SS,
162W, 184W
- 145 Rutgers, The State University
New Brunswick, New Jersey 08903
54Cr, 56Fe, 58Fe, 202Hg, 204Hg,
58Ni, 60Ni, 62Ni, 64Ni, 124Sn,
86Sr, 67Zn
- 146 Sandia Corporation
Post Office Box 5800
Albuquerque, New Mexico 87115
108, 107Er, Tgs, 173Yb
- 147 Singer Company
70 New Dutch Lane
Fairfield, New Jersey 07006
190Hg, 199Hg, 200Hg, 201Hg, 204Hg,
SS
- 148 Smithsonian Institution
10th Street and Constitution Avenue N. W.
Washington, D. C. 20560
30S
- 149 South Carolina, University of
Columbia, South Carolina 29208
113Cd, 207Pb
- 150 Southern California, University of
University Park
Los Angeles, California 90007
79Br, 81Br, 69Ga, 41K, 24Mg, Tgs
- 151 Southern Methodist University
Purchasing Department
Dallas, Texas 75275
63Cu, 56Fe, 58Ni, 60Ni, 88Sr
- 152 Spectra-Physics, Inc.
1250 W. Middlefield Road
Mountain View, California 94040
110Cd, SS
- 153 Stanford University
P. O. Box 4409
Stanford, California 94305
40Ca, 110Cd, 140Ce, 160Er, 56Fe,
57Fe, 204Hg, 206Hg, 180Os, 196Pt,
120Sn, SS, Tgs
- 154 Stevens Institute of Technology
Castle Point Station
Hoboken, New Jersey 07030
57Fe, 119Sn, SS
- 155 Stohler Isotope Chemicals Inc.
49 Jones Road
Waltham, Massachusetts 02154
6Li
- 156 Teledyne Isotopes
123 Woodland Avenue
Westwood, New Jersey 07675
6Li
- 157 Tennessee, University of
Knoxville, Tennessee 37916
153Eu, 72Ge, 73Ge, 74Ge, Tgs

- 158 Texas A and M Research Foundation
P. O. Box H
College Station, Texas 77843
 ^{40}Ca , ^{40}Ca , ^{33}S , ^{28}Si , ^{55}SS
- 159 Texas A and M University
Post Office Box 44
College Station, Texas 77843
 ^{138}Ba , ^{37}Cl , ^{65}Cu , ^{164}Dy , ^{170}Er ,
 ^{153}Eu , ^{160}Gd , ^{24}Mg , ^{26}Mg , ^{99}Mo , ^{144}Nd ,
 ^{150}Nd , ^{58}Ni , ^{208}Pb , ^{208}Pb , ^{187}Re ,
 ^{144}Sm , ^{147}Sm , ^{150}Sm , ^{152}Sm , ^{154}Sm ,
 ^{116}Sn , ^{118}Sn , ^{119}Sn , ^{120}Sn , ^{122}Sn ,
 ^{124}Sn , ^{76}Yb , ^{64}Zn
- 160 Texas at Dallas, University of
P. O. Box 30365
Dallas, Texas 75230
 ^{205}Pb , ^{208}Pb , ^{87}Rb , ^{86}Sr
- 161 Toledo Edison Company and
Cleveland Electric Illuminating Company
5501 North State Route No. 2
Oak Harbor, Ohio 43449
 ^7Li
- 162 U. S. Energy Research and Development Administration
Purchasing Office
4800 Forbes Avenue
Pittsburgh, Pennsylvania 15213
 ^{113}Cd , ^{153}Eu , ^{99}Mo , ^{62}Ni
- 163 U. S. Navy, Ships Parts Control Center
Code 7225, Mechanicsburg, pa 17055
 ^7Li
- 164 Union Carbide Corporation
Post Office Box 8361
South Charleston, West Virginia 25303
 ^{35}Cl , ^{37}Cl
- 165 Union Carbide Corporation
Sterling Forest Research Center
Post Office Box 324
Tuxedo, New York 10987
 ^{50}Cr , ^{154}Dy , ^{144}Er , ^{86}Sr , ^{55}SS , ^{76}Tg
- 166 Union Carbide Corporation, Nuclear Division
Oak Ridge National Laboratory
Post Office Box X
Oak Ridge, Tennessee 37830
 ^{109}Ag , ^{108}B , ^{11}B , ^{133}Ba , ^{135}Ba , ^{138}Ba ,
 ^{138}Ba , ^{40}Ca , ^{140}Ce , ^{50}Cr , ^{63}Cu ,
 ^{150}Dy , ^{163}Dy , ^{144}Er , ^{160}Er , ^{170}Er ,
 ^{151}Eu , ^{153}Eu , ^{56}Fe , ^{58}Fe , ^{59}Fe ,
 ^{150}Gd , ^{160}Gd , ^{160}Hf , ^{204}Hg , ^{113}In ,
 ^{41}K , ^6Li , ^7Li , ^{24}Mg , ^{26}Mg , ^{99}Mo ,
 ^{15}N , ^{142}Nd , ^{140}Nd , ^{148}Nd , ^{150}Nd ,
 ^{60}Ni , ^{60}Ni , ^{62}Ni , ^{64}Ni , ^{208}Pb ,
 ^{209}Pb , ^{105}Pd , ^{192}Pt , ^{194}Pt , ^{32}S , ^{34}S ,
 ^{76}Se , ^{144}Sm , ^{147}Sm , ^{150}Sm , ^{116}Sn ,
 ^{124}Sn , ^{86}Sr , ^{55}SS , ^{122}Te , ^{124}Te , ^{76}Tg ,
 ^{60}Tl , ^{180}W , ^{184}W , ^{64}Zn , ^{90}Zr ,
 ^{90}Zr
- 167 Union Carbide Corporation, Nuclear Division
Y-12 Plant
Post Office Box Y
Oak Ridge, Tennessee 37830
 ^{135}Ba , ^{106}Cd , ^{111}Cd , ^{52}Cr , ^{65}Cu ,
 ^{57}Fe , ^{41}K , ^{99}Mo , ^{61}Ni , ^{208}Pb ,
 ^{198}Pt , ^{77}Se , ^{86}Sr , ^{76}Tg , ^{184}W
- 168 United States Air Force
Kirtland Air Force Base, New Mexico 87117
 ^{81}Br , ^{35}Cl , ^{76}Tg
- 169 United States Air Force
McClellan Air Force Base, California 95652
 ^{150}Gd , ^{76}Ge , ^{92}Mo , ^{144}Nd , ^{194}Pt ,
 ^{198}Pt , ^{152}Sm , ^{64}Zn
- 170 United States Army
Mobility Equipment
Research and Development Center
Fort Belvoir, Virginia 22060
 ^7Li
- 171 United States Army
Harry Diamond Laboratories
Connecticut Avenue and Van Ness St. N. W.
Washington, D. C. 20438
 ^6Li
- 172 United States Geological Survey
Financial Management
National Center, Room 1447-A
12201 Sunrise Valley Drive
Reston, Virginia 22092
 ^{10}B , ^{11}B , ^{179}Hf , ^6Li , ^7Li , ^{176}Lu ,
 ^{205}Pb , ^{85}Rb , ^{148}Sm , ^{149}Sm
- 173 United States National Aeronautics and Space Adm.
Lewis Research Center
21000 Brookpark Road
Cleveland, Ohio 44135
 ^{203}Tl , ^{205}Tl
- 174 United States National Aeronautics and Space Adm.
Langley Research Center
Langley Station
Hampton, Virginia 23365
 ^{57}Fe , ^{105}Pd , ^{55}SS , ^{76}Tg
- 175 United States National Aeronautics and Space Adm.
George C. Marshall Space Flight Center
Huntsville, Alabama 35812
 ^{76}Tg
- 176 United States National Aeronautics and Space Adm.
Manned Spacecraft Center
Houston, Texas 77058
 ^{146}Nd , ^{150}Nd
- 177 United States National Aeronautics and Space Adm.
Ames Research Center
Moffett Field, California 94035
 ^{40}Ca

- 178 United States Navy
National Naval Medical Center
Bethesda, Maryland 20014

57Fe
- 179 United States Navy
Naval Postgraduate School
Monterey, California 93940

60Ni, 60Ni, Tgs
- 180 United States Navy
Naval Research Laboratory
Washington, D. C. 20390

54Fe, 6Li, Tgs
- 181 United States Public Health Service
Robert A. Taft Sanitary Engineering Center
4676 Columbia Parkway
Cincinnati, Ohio 45226

54Fe, 205Tl
- 182 United States Public Health Service
National Institutes of Health, Isotope Laboratory
Building 21
Bethesda, Maryland 20014

57Fe, SS
- 183 University of Connecticut
Health Center
Farmington, Connecticut 06032

100pt
- 184 University of Maryland
Baltimore County Campus
5401 Wilkins Drive
Baltimore, Maryland 21228

63Cu
- 185 Vanderbilt University
Business Managers Office
Nashville, Tennessee 37203

70Br, SS, Tgs
- 186 Virginia Electric and Power Company
P. O. Box 1194
Richmond, Virginia 23209

7Li
- 187 Virginia Polytechnic Institute
Blacksburg, Virginia 24061

40Ca, Tgs
- 188 Virginia, University of
Charlottesville, Virginia 22903

133Ba, 40Ca, 206Pb, 206Pb, 207Pb,
208Pb, 87Sr, SS, Tgs
- 189 Vitrifunctions
720 Terrace View Drive
P. O. Box 694
Greensburg, Pennsylvania 15601

7Li
- 190 Washington University
Lindell and Skinker
St. Louis, Missouri 63130

130Ba, 138Ba, 140Ce, 142Ce, 52Cr,
53Cr, 63Cu, 65Cu, 151Eu, 152Gd,
153Gd, 144Nd, 146Nd, 142Pt, 140Pt,
88Sr
- 191 Washington, University of
400 Administration Building
Seattle, Washington 98105

10B, 6Li
- 192 Western Michigan University
Kalamazoo, Michigan 49001

6Li, 150Nd, SS
- 193 Western Washington College
Bellingham, Washington 98225

200Hg, 201Hg, 203Hg
- 194 Westinghouse Electric Corporation
Bettis Atomic Power Laboratory
Post Office Box 79
West Mifflin, Pennsylvania 15122

170Hf, 61Ni, 207Pb, Tgs
- 195 Westinghouse Electric Corporation
Atomic Power Divisions
P. O. Box 355
Pittsburgh, Pennsylvania 15230

7Li
- 196 Westinghouse Hanford Company
P. O. Box 1970
Richland, Washington 99352

144Nd, Tgs
- 197 Wisconsin, University of
750 University Avenue
Madison, Wisconsin 53706

40Ca, 37Cl, 34S, Tgs
- 198 Wyoming, University of
Laramie, Wyoming 82070

SS
- 199 Yale University
20 Ashmun Street
New Haven, Connecticut 06520

10B, 113Cd, 114Cd, 6Li, 25Mg, 50Ni,
140Gd, 142Gd, 144Pt, 140Pt, 88Sr,
SS, 130Te
- 200 Yeshiva University
1300 Morris Park Avenue
Bronx, New York 10461

67Zn

B. FOREIGN

ARGENTINA

- 201 Comision Nacional de Energia Atomica
Gerencia de Energia
Avda. del Libertador 8250
Buenos Aires, Argentina
200Hg

AUSTRALIA

- 202 Australian Consulate General
636 Fifth Avenue
New York, New York 10020
66Zn
- 203 Australian National University
P. O. Box 4
Canberra, A. C. T., Australia
11B, 110Cd, 52Cr, 160Dy, 161Dy, 162Dy,
163Dy, 164Dy, 151Eu, 54Fe, 198Hg,
200Hg, 201Hg, 202Hg, 203Hg, 204Hg,
145Nd, 150Nd, 206Pb, 208Pb, 149Sm,
116Sn, 118Sn, 120Sn, 122Sn, 124Sn,
97Tl
- 204 Commonwealth Scientific and Ind. Res. Organization
Division of Applied Physics
University Grounds, City Road, Chippendale N.
Sydney, N. S. W., Australia
142Ce, 161Dy, 167Er, 152Eu, 155Gd,
138La, 143Nd, 85Rb, 149Sm, 171Yb
- 205 Commonwealth Scientific and Industrial Research Ur
Division of Mineral Chemistry
P. O. Box 124
Port Melbourne, Victoria, Australia
10B, 11B
- 206 Melbourne, University of
Parkville N.2, Melbourne
Victoria, Australia
66Ca, 50Cr, 52Cr, 63Cu, 65Cu, 54Fe,
56Fe, 68Ga, 71Ga, 70Ge, 72Ge,
58Ni, Tgs, 66Zn, 68Zn
- 207 Monash University
Wellington Road
Clayton, Victoria, Australia
160Dy, 155Gd
- 208 New South Wales, University of
P. O. Box 1
Kensington, NSW 2033, Australia
54Fe, 57Fe
- 209 Union Carbide Australia Limited
Union Carbide Building
157-167 Liverpool Street
Sydney, N.S.W., Australia 3000
135Ba, 137Ba
- 210 University of Adelaide
Adelaide, South Australia 5001
142Ce, 167Er, 145Nd

- 211 Western Australian Institute of Technology
Hayman Road
Bentley South 6102
Western Australia
179Hf, 112In, 175Lu, 99Mo, 100Mo,
102Pd, 103Pd, 96Ru, 101Ru, 102Ru,
120Te, 123Te, 126Te, 91Zr

AUSTRIA

- 212 Atomic Energy Centre
P. O. Box No. 164
Ramna, Dacca
Bangladesh
56Cr
- 213 International Atomic Energy Agency
Kaerntnerring 11-13
A-1010 Vienna, Austria
50Cr, 58Fe
- 214 Osterreichische Studiengesellschaft
fur Atomenergie Ges. M.B.H.
Lenaugasse 10
A-1082 Wien, Austria
99Mo, 142Nd, 150Nd
- 215 Vienna, University of
Waehringerstrasse 42, A-1090
Vienna 9, Austria
50Cr, 56Cr, 66Zn, 68Zn

BELGIUM

- 216 European Atomic Energy Commission
Central Bureau for Nuclear Measurements
Geel, Belgium
62Ca, 157Gd, 6Li, 145Nd, 84Sr, SS,
91Zr, 96Zr
- 217 IRE, Institut National des Radioelements
Avenue Eugene Plasky, 144
1040 Brussels, Belgium
81Br, 66Ca, 68Ca, 111Cd, 52Cr, 65Cu,
57Fe, 6Li, 25Mg, 60Ni, 206Pb,
76Se, 30Si, 84Sr, SS, 60Ti, 97Ti,
50Ti, 68Zn
- 218 Lab voor Kernfysica
Proeftuinstraat 86
9000 Ghent
Belgium
90K
- 219 Liege, Universite de
2 rue Armand Stevart
Liege, Belgium
57Fe, SS, Tgs
- 220 Louvain, Universite de
Parc D'Arenberg
Heverle Louvain, Belgium
6Li, 206Pb, 110Pd, 116Sn, 118Sn, 126Te,
125Te, 126Te, 130Te, Tgs

221 Pakistan Embassy
25 Avenue de Gaulle
1040 Brussels
Belgium

^{108}B , ^{110}Cd , ^{136}Ce , ^{140}Ce , ^{142}Ce ,
 ^{160}Dy , ^{54}Fe , ^{56}Fe , ^{154}Gd , ^{113}In ,
 ^{138}La , ^{92}Mo , ^{94}Mo , ^{152}Nd , ^{145}Nd ,
 ^{208}Pb , ^{96}Zr

222 Universitaire Instelling Antwerpen
Universiteitsplein 1
B-2610 Wilrijk, Belgium

^{135}Ba , ^{136}Ba , ^{106}Cd , ^{110}Cd , ^{142}Ce ,
 ^{177}Hf , ^{179}Hf , ^{199}Hg , ^{180}Os , ^{189}Os ,
 ^{208}Pb , ^{209}Pb , ^{207}Pb , ^{105}Pd , ^{87}Rb ,
 ^{99}Ru , ^{117}Sn , ^{86}Sr , ^{87}Sr , ^{125}Te ,
 ^{92}Zr , ^{94}Zr

BRAZIL

223 Empresas Nucleares Brasileiras S/A - Nuclebras
Rua General Polidoro
316 - Rio de Janeiro (RJ)
Brazil

^{70}Ge

224 Governo Federal, Conselho Nacional de Pesquisas
Instituto de Energia Atomica
Caixa Postal 11049
Sao Paulo 4, S. P. A., Brazil

^{116}Cd , ^{104}Ru

225 Hospital das Clinicas da Faculdade
de Medicina da Universidade de Sao Paulo
Sao Paulo, Brazil

^{107}Ag , ^{142}Ce , ^{24}Mg , ^{25}Mg , ^{26}Mg , ^{143}Nd ,
 ^{152}Nd , ^{208}Pb , ^{30}Si , ^{144}Sm , ^{147}Sm ,
 ^{117}Sn

226 University of Regina
Regina, Saskatchewan, Canada

^6Li , ^7Li

CANADA

227 Atomic Energy of Canada Limited
P. O. Box 6300
Postal Station J
Ottawa, Canada

^{50}Cr , ^{196}Hg , Tgs

228 Atomic Energy of Canada Limited
Chalk River, Ontario, Canada

^{50}Cr , ^{54}Fe , ^{196}Hg , ^{199}Hg , ^{204}Hg ,
 ^6Li , ^{208}Pb , ^{207}Pb , ^{209}Pb , ^{34}S , ^{32}S ,
 ^{130}Te , Tgs, ^{48}Ti , ^{203}Tl , ^{205}Tl , ^{182}W ,
 ^{183}W , ^{184}W , ^{186}W , ^{60}Zn

229 Atomic Energy of Canada Limited
Whiteshell Nuclear Research Establishment
Pinawa, Manitoba, Canada

^{108}B

230 Barringer Research Ltd.
304 Carlingview Drive
Rexdale, Ontario, Canada

^{208}Pb , ^{207}Pb

231 British Columbia, University of
Vancouver 8, B.C., Canada

^{63}Cu , ^7Li , Tgs

232 Dalhousie University
Halifax, Nova Scotia
Canada

^{195}Pt

233 Guelph, University of
Guelph, Ontario, Canada

^{108}Pd , ^{102}Ru

234 Health Sciences Centre
791 Notre Dame Avenue
Winnipeg, Manitoba, Canada R3E 0M1

^{126}Te

235 Laval, Universite de
Case Postale 2208
Pavillon Vachon
Quebec 10, P.Q., Canada

^{118}B , ^{50}Cr , ^{52}Cr , ^{56}Fe , ^{70}Ge , ^6Li ,
 ^{62}Ni , ^{104}Ru , ^{80}Se , ^{60}Zn

236 Manitoba, University of
Winnipeg, Manitoba, Canada

^{57}Fe

237 Marine Science Directorate
Department of Environment
512-1230 Government Street
Victoria, British Columbia, Canada

^{44}Ca , ^{112}Cd , ^{114}Cd , ^{50}Cr , ^{52}Cr , ^{65}Cu ,
 ^{57}Fe , ^{62}Ni , ^{208}Pb , ^{209}Pb , ^{207}Pb ,
 ^{206}Pb , ^{60}Zn

238 McGill University
Montreal 2, P.Q., Canada

^{79}Br , ^{106}Cd , ^{142}Ce , ^{63}Cu , ^{70}Ge ,
 ^{142}Nd , ^{144}Sm , ^{112}Sn , ^{114}Sn , ^{122}Sn , ^{124}Sn ,
 ^{32}S , ^{126}Te , ^{125}Te , Tgs, ^{48}Ti , ^{50}Ti ,
 ^{90}Zr

239 McMaster University
Hamilton, Ontario, Canada

^{135}Ba , ^{136}Ba , ^{42}Ca , ^{44}Ca , ^{50}Cr , ^{52}Cr ,
 ^{170}Er , ^{153}Eu , ^{54}Fe , ^{56}Fe , ^{57}Fe ,
 ^{156}Gd , ^{41}K , ^{176}Lu , ^{92}Mo , ^{142}Nd ,
 ^{150}Nd , ^{180}Os , ^{190}Os , ^{192}Os , ^{207}Pb ,
 ^{22}S , ^{30}Si , ^{144}Sm , ^{147}Sm , ^{32}S , ^{126}Te ,
 ^{128}Te , ^{130}Te , ^{50}V , ^{173}Yb , ^{176}Yb ,
 ^{60}Zn

240 McMaster University Medical Center
Forsythe Avenue
Hamilton, Ontario, Canada

^{50}Cr , ^{152}Sm

241 Merck, Sharp and Dohme
Canada Limited
16711 Trans Canada Highway
Kirkland, Quebec, Canada

^{37}Cl

242 Montreal, Université de
Montreal, Canada

^{100}Mo , ^{76}Se , ^{78}Se , ^{80}Se , ^{82}Se ,
SS, Tgs, ^{92}Zr , ^{94}Zr

243 National Research Council
Montreal Road Laboratories
Ottawa, Ontario, Canada

^{42}Ca , ^{44}Ca , ^{50}Cr , ^{63}Cu , ^{57}Fe , ^{61}K ,
 ^{143}Nd , ^{207}Pb , ^{187}Re , ^{30}Si , ^{86}Sr ,
 ^{67}Zn

244 Queens University
Kingston, Ontario, Canada

^{40}Ca , ^{35}Cl , ^{58}Ni , ^{34}S , ^{28}Si , SS

245 Royal Ontario Museum
100 Queens Park
Toronto, Ontario, Canada M5S 2C6

^{208}Pb , ^{87}Rb

246 Saint Francis Xavier University
Antigonish, Nova Scotia, Canada

^{87}Rb , ^{88}Sr

247 Saskatchewan, University of
Saskatoon, Saskatchewan, Canada

^{108}Ag

248 Simon Fraser University
Burnaby 2, B. C., Canada

^{125}Te

249 Toronto, University of
Toronto, Ontario, Canada

^{110}Cd , ^{20}Mg , ^{90}Mo , ^{140}Nd , ^{148}Nd ,
 ^{150}Nd , ^{58}Ni , ^{28}Si , ^{152}Sm , SS, ^{180}W

250 University Hospital
Saskatoon, Saskatchewan
Canada S7N 0W8

^{65}Cu , ^{54}Fe , ^{57}Fe , ^{204}Pb , ^{67}Zn

251 University of Alberta
Edmonton, Alberta, Canada T6G 2H1

^{30}Si

252 York University
4700 Keele Street
Downsview, Ontario, Canada

^{54}Fe

CHINA

253 National Tsing Hua University
110 Chin Hua Street
Taipei, Taiwan, China

^{50}Cr , ^{52}Cr , ^{53}Cr , ^{63}Cu , ^{65}Cu , ^{54}Fe ,
 ^{57}Fe , ^{70}Ge , ^{70}Ge , ^6Li , ^{58}Ni ,
 ^{60}Ni , ^{62}Ni , ^{76}Se , ^{77}Se

DENMARK

254 Aarhus, University of
Aarhus C, Denmark

^{134}Ba , ^{136}Ba , ^{48}Ca , ^{57}Fe , ^{58}Ni ,
 ^{144}Sm , SS, Tgs, ^{46}Ti

255 Atomic Energy Commission
Research Establishment Risø
Isotope Division
Roskilde, Denmark

^{40}Ca , ^7Li

256 Denmark Technical, University of
Lyngby, Denmark

^{57}Fe

257 Københavns Universitet
Blegdamsvej 17
København Ø, Denmark

^{92}Mo , ^{100}Mo , ^{59}Ni , ^{60}Ni

258 Københavns Universitet
Risø Pr.
Roskilde, Denmark

^{109}Ag , ^{48}Ca , ^{50}Cr , ^{170}Er , ^{76}Ge ,
 ^{115}In , ^{58}Ni , ^{208}Pb , ^{209}Pb , ^{108}Pd ,
 ^{99}Ru , ^{28}Si , Tgs, ^{66}Zn , ^{68}Zn

EGYPT

259 American University in Cairo
c/o International Institutional Services Inc.
380 Madison Avenue
New York, New York 10017

^{107}Ag , ^{109}Ag , ^{108}B , ^{11}B

ENGLAND

260 Birmingham, University of
Edgbaston, Birmingham 15, England

^{40}Ca

261 British Embassy
3100 Massachusetts Avenue, N. W.
Washington, D. C. 20008

^{171}Hf , SS

262 Cambridge University
Cambridge, England

^{179}Hf , ^{176}Lu , ^{87}Rb , ^{88}Sr

263 Johnson, Matthey and Company, Ltd.
Blount's Court
Sonning Common
Reading RG4 9NH
England

^{199}Pt

264 Leeds, University of
Leeds 2, England

^{142}Ce , ^{167}Er , ^{155}Gd , ^{138}La , ^{175}Lu ,
 ^{143}Nd , ^{85}Rb , ^{171}Yb

265 Levy West Laboratories, Ltd.
Bush Fair
Harlow, Essex, England

^{6}Li

266 Liverpool, University of
Liverpool 3, England

^{134}Ba , ^{56}Fe , ^{190}Pt , SS, Tgs, ^{90}Ti

267 London, University of
Strand, London W.C.2., England

^{90}Ca , ^{44}Ca , ^{40}Ca , Tgs

268 Manchester University
Manchester 13, England

^{118}B , ^{161}Dy , ^{163}Dy , ^{167}Er , ^{151}Eu ,
 ^{155}Gd , ^{150}Nd , ^{192}Os , ^{206}Pb , ^{104}Pd ,
 ^{192}Pt , ^{194}Pt , ^{196}Pt , ^{198}Pt , ^{112}Sn ,
 ^{114}Sn , ^{116}Sn , ^{122}Sn , ^{124}Sn , ^{171}Yb ,
 ^{173}Yb

269 New Metals + Chemicals Ltd.
Chancery House, Chancery Lane
London WC2A 1RD, England

^{108}B

270 Permutit Company Ltd., The
632/652 London Road
Isleworth, Middlesex, England

^{7}Li

271 R. E. Swann, Ltd.
109 Fenchurch Street
London, E.C.3, England

^{37}Cl , JJ

272 Radiochemical Centre
White Lion Road
Amersham, Bucks, England

^{130}Ba , ^{44}Ca , ^{40}Ca , ^{50}Cr , ^{151}Eu ,
 ^{56}Fe , ^{190}Hg , ^{60}Ni , ^{76}Se , ^{112}Sn ,
 ^{124}Sn , ^{88}Sr , SS, ^{122}Te , ^{124}Te , Tgs,
 ^{203}Tl , ^{104}W , ^{66}Zn

273 St. Mary's Hospital Medical School
Norfolk Pl. Paddington
London W2 1PG, England

^{40}Ca

274 United Kingdom Treasury and Supply Delegation
25 Broadway
New York, New York 10004

^{118}B , ^{136}Ba , ^{135}Ba , ^{130}Ba , ^{42}Ca , ^{44}Ca ,
 ^{110}Cd , ^{35}Cl , ^{37}Cl , ^{50}Cr , ^{54}Cr , ^{161}Dy ,
 ^{162}Dy , ^{164}Dy , ^{57}Fe , ^{156}Gd , ^{160}Gd ,
 ^{70}Ge , ^{76}Ge , ^{78}Ge , ^{7}Li , ^{98}Mo ,
 ^{140}Nd , ^{148}Nd , ^{150}Nd , ^{62}Ni , ^{206}Pb ,
 ^{144}Sm , ^{152}Sm , ^{114}Sn , ^{122}Sn , ^{124}Sn , SS,
 ^{90}Ti

FINLAND

275 Helsinki, University of
Helsinki, Finland

^{170}Fr , ^{80}Ga

276 Valtion Hankintakeskus
P. O. Box 50027
Helsinki, Finland

^{191}Ir , ^{193}Ir , ^{6}Li , ^{100}Os , ^{180}Os ,
 ^{190}Os , ^{192}Os , ^{114}Sn , ^{116}Sn , ^{92}Zr

FRANCE

277 C.N.R.S. New York Office
972 Fifth Avenue
New York, New York 10021

^{84}Sr

278 CEA
Department des Radioelements
B. P. No. 2
91190 Gif Sur Yvette, France

^{109}Ag , ^{108}B , ^{136}Ba , ^{44}Ca , ^{106}Cd ,
 ^{110}Cd , ^{35}Cl , ^{37}Cl , ^{53}Cr , ^{54}Cr , ^{161}Dy ,
 ^{162}Dy , ^{56}Fe , ^{57}Fe , ^{69}Ga , ^{157}Gd ,
 ^{190}Hg , ^{199}Hg , ^{40}K , ^{41}K , ^{6}Li , ^{173}Lu ,
 ^{176}Lu , ^{24}Mg , ^{25}Mg , ^{26}Mg , ^{92}Mo , ^{140}Nd ,
 ^{58}Ni , ^{61}Ni , ^{62}Ni , ^{180}Os , ^{190}Os ,
 ^{192}Os , ^{206}Pb , ^{206}Pb , ^{207}Pb , ^{208}Pb ,
 ^{102}Pd , ^{194}Pt , ^{196}Pt , ^{198}Pt , ^{76}Se ,
 ^{78}Se , ^{80}Se , ^{82}Se , ^{30}Si , ^{144}Sm ,
 ^{154}Sm , ^{122}Sn , ^{88}Sr , ^{87}Sr , ^{86}Sr , SS,
 ^{122}Te , ^{123}Te , ^{124}Te , ^{126}Te , ^{128}Te , Tgs,
 ^{90}Ti , ^{174}Yb , ^{90}Zr , ^{92}Zr , ^{94}Zr

279 CNRS, SNCI
(Service National Champs Intenses)
B. P. 166
38042 Grenoble, Cedex, France

^{57}Fe , ^{58}Ni , ^{60}Ni , ^{62}Ni , ^{64}Ni

280 CRN, Labo PNPA
D. P. 20/CRU
67 Strasbourg 3, France

^{40}Ca , ^{44}Ca , ^{46}Ca , ^{106}Cd , ^{108}Cd ,
 ^{110}Cd , ^{179}Hf , ^{180}Hf , ^{61}Ni , ^{104}Pd ,
 ^{106}Pd , ^{108}Pd , ^{190}Pt , ^{33}S , ^{34}S , ^{36}S ,
 ^{30}Si , ^{112}Sn , SS, ^{124}Te , ^{126}Te , Tgs,
 ^{90}Ti , ^{174}Yb , ^{90}Zr , ^{92}Zr

281 Hyperelec
Avenue Eugene Freyssinet
19 Brive, France

^{108}B

282 Institut Max von Laue-Paul Langevin
Cedex 156
38 Grenoble-Gare, France

^{113}Cd , ^{152}Sm

283 Institut de Physique Nucleaire de Lyon
43 Boulevard du 11 Novembre 1918
69 Villeurbanne, France

^{50}Cr , ^{53}Cr , ^{102}Pd , Tgs

284 Laboratoire de Chimie Nucleaire
Universite de Bordeaux
LeHaut-Vigneau
33 Gradignan, France
 ^{35}Cl , ^{33}S

GERMANY

285 American Hoechst Corporation
P. O. Box 2500
Somerville, New Jersey 08876
 ^{50}Cr , ^{190}Hg , ^{74}Se , ^{84}Sr , SS

286 Bochum, Ruhr-Universität
463 Bochum, West Germany
 ^{10}B , ^{57}Fe , ^{150}Gd , ^{192}Os , ^{104}Pd ,
 ^{28}Si , ^{119}Sn , SS , ^{160}W

287 Bonn, Universität
Nussallee 12-14
55 Bonn, Germany
 ^{92}Mo , SS , Tgs , ^{90}Zr , ^{91}Zr

288 Buchler and Company
Frankfurter Str. 294
Braunschweig, Germany
 ^{10}B , ^{35}Cl , ^{37}Cl , ^{53}Cr , ^{150}Dy ,
 ^{150}Dy , ^{160}Dy , ^{161}Dy , ^{162}Dy , ^{163}Dy ,
 ^{164}Dy , ^{190}Hg , ^{190}Hg , ^{199}Hg , ^{201}Hg ,
 ^{41}K , ^{6}Li , ^{176}Lu , ^{50}Ni , ^{108}Pd , ^{33}S ,
 ^{152}Sm , ^{116}Sn , SS , ^{120}Te , Tgs , ^{66}Zn

289 Darmstadt, Technischen Hochschule
61 Darmstadt, Germany
 ^{40}Ca

290 Deutsches Krebsforschungszentrum
Berliner Str. 21
6900 Heidelberg, Germany
 ^{112}Cd , ^{76}Se , ^{76}Se , ^{120}Te , ^{67}Zn

291 Erlangen-Nürnberg, University
Gluckstr.
852 Erlangen, West Germany
 ^{57}Fe , ^{20}Hg , ^{142}Nd , ^{30}Si , SS , Tgs

292 Freie Universität
1 Berlin 33, Germany
 ^{109}Ag , ^{106}Cd , ^{100}Cd , ^{112}Cd , ^{65}Cu ,
 ^{167}Er , ^{151}Eu , ^{153}Eu , ^{200}Hg , ^{113}In ,
 ^{208}Pb , ^{112}Sn , ^{117}Sn , ^{110}Sn , ^{122}Sn , SS ,
 ^{130}Te , Tgs , ^{203}Ti , ^{205}Ti , ^{160}W

293 Freie und Hansestadt Hamburg
2 Hamburg-Bahrenfeld, Germany
 ^{107}Ag , ^{136}Ce , ^{65}Cu , ^{160}Er , ^{57}Fe ,
 ^{155}Gd , ^{157}Gd , ^{150}Gd , ^{160}Gd , ^{76}Ge ,
 ^{6}Li , ^{7}Li , ^{97}Mo , ^{140}Nd , ^{140}Nd , ^{50}Ni ,
 ^{60}Ni , ^{61}Ni , ^{60}Ni , ^{208}Pb , ^{208}Pb ,
 ^{30}Si , ^{140}Sm , ^{150}Sm , ^{119}Sn , ^{130}Te

294 Gesamthochschule Wuppertal
FB9 - Prof. Burger
Gewerbeschulstr. 34
D-5600 Wuppertal 2
West Germany
 ^{10}B , ^{79}Br , ^{37}Cl

295 Gesellschaft für Kernforschung mbH
Institute fuer Angewandte Reaktor Physik
Weberstrasse 5
75 Karlsruhe
West Germany

^{10}B , ^{130}Ba , ^{134}Ba , ^{40}Ca , ^{110}Cd , ^{58}Fe ,
 ^{160}Gd , ^{76}Ge , ^{41}K , ^{6}Li , ^{60}Ni , ^{110}Pd ,
 ^{195}Pt , ^{140}Sm , ^{152}Sm , SS , ^{122}Te , ^{120}Te ,
 Tgs

296 Gesellschaft für Schwerionenforschung mbH
Targetlabor
Postfach 541
D-6100 Darmstadt, West Germany

^{160}Dy , ^{160}Gd , ^{170}Hf , ^{180}Hf , ^{150}Nd ,
 ^{62}Ni , ^{190}Os , ^{110}Pd , ^{90}Ru , ^{100}Ru ,
 ^{90}Ti , ^{170}Yb , ^{171}Yb , ^{174}Yb , ^{176}Yb ,
 ^{90}Zr

297 Giessen, Universität
6300 Giessen, Germany
 ^{200}Hg , ^{7}Li

298 Goettingen, Universität
34 Goettingen, Germany
 Tgs

299 Hahn-Meitner-Institut
für Kernforschung Berlin, Sektion Kernphysik
Berlin, Germany

^{110}Cd , ^{112}Cd , ^{65}Cu , ^{176}Lu , ^{25}Mg ,
 ^{20}Mg , ^{62}Ni , ^{60}Ni , ^{30}Si , SS , Tgs ,
 ^{66}Zn , ^{67}Zn , ^{90}Zr

300 Heidelberg, Universität
Heidelberg, Germany
 ^{40}Ca , ^{7}Li

301 Institute für Metallforschung-Metalphysik
Technische Universität Berlin
1 Berlin 15, Joachimstaler Str. 31/32
Germany
 ^{151}Eu , ^{153}Eu , ^{120}Sn , SS

302 Johann Wolfgang Goethe University
Frankfurt/Main, Germany
 ^{130}Ba , ^{153}Eu , ^{57}Fe , ^{155}Gd , ^{157}Gd ,
 ^{171}Lu , ^{195}Pt , ^{190}Pt , ^{87}Sr , ^{88}Sr ,
 Tgs , ^{162}W , ^{164}W , ^{166}W , ^{91}Zr

303 Karlsruhe, der Universität
Engesserstrasse 7
75 Karlsruhe, West Germany
 ^{35}Cl , ^{37}Cl , ^{176}Yb

304 Kernforschung Sanlage
Postfach 365
517 Jülich, Germany

^{107}Ag , ^{106}Cd , ^{108}Cd , ^{52}Cr , ^{53}Cr ,
 ^{54}Cr , ^{56}Fe , ^{57}Fe , ^{155}Gd , ^{170}Hf ,
 ^{160}Hf , ^{190}Hg , ^{199}Hg , ^{200}Hg , ^{6}Li ,
 ^{176}Lu , ^{140}Nd , ^{140}Nd , ^{61}Ni , ^{60}Ni ,
 ^{160}Os , ^{180}Os , ^{102}Pd , ^{192}Pt , ^{90}Ru ,
 ^{76}Se , ^{77}Se , ^{78}Se , ^{119}Sn , ^{120}Sn ,
 SS , ^{122}Te , ^{120}Te , ^{120}Te , ^{130}Te ,
 Tgs , ^{90}Ti , ^{97}Ti , ^{90}Ti , ^{99}Ti , ^{50}Ti ,
 ^{66}Zn , ^{66}Zn , ^{67}Zn , ^{70}Zn , ^{90}Zr

305 Kiel Universität
2057 Geesthacht Reactorstation
23 Kiel, Germany

^{106}Cd , SS

306 Köln, Universität
Zulpicher Str. 47
5 Köln 1, Germany

^{107}Ag , ^{109}Ag , ^{40}Ca , ^{37}Cl , ^{53}Cr ,
 ^{160}Gd , ^{198}Hg , ^{201}Hg , ^{204}Hg , ^{96}Mo ,
 ^{96}Mo , ^{98}Mo , ^{100}Mo , ^{58}Ni , ^{64}Ni ,
 ^{186}Os , ^{188}Os , ^{190}Os , ^{192}Os ,
 ^{121}Sb , ^{123}Sb , ^{82}Se , ^{29}Si , SS, ^{122}Te ,
Tgs, ^{171}Yb , ^{90}Zr , ^{90}Zr

307 List Electronic
116 Bismarckstrasse
D-61 Darmstadt, West Germany

^{40}Ca , ^{42}Ca , Tgs

308 Mainz/Rhein, Universität
Mainz am Rhein, Germany

^{196}Pt , ^{148}Sm , Tgs

309 Marburg/Lahn, Universität
Marburg/Lahn, Germany

^{144}Gm

310 Max Planck Institut für Kernphysik
Saupfercheckweg
Heidelberg, Germany

^{10}B , ^{11}B , ^{42}Ca , ^{40}Ca , ^{156}Dy , ^{158}Dy ,
 ^{160}Dy , ^{161}Dy , ^{162}Dy , ^{163}Dy , ^{164}Dy ,
 ^{166}Er , ^{157}Gd , ^{160}Hf , ^{204}Hg , ^{206}Hg ,
 ^{58}Ni , ^{60}Ni , ^{62}Ni , ^{64}Ni , ^{208}Pb ,
 ^{196}Pt , ^{148}Sm , ^{150}Sm , SS, ^{130}Te , Tgs,
 ^{90}Ti , ^{88}Zn , ^{70}Zn

311 Max Planck Institute für Chemie
Saarstrasse 23, Mainz
West Germany

^{176}Hf , ^{177}Hf , ^{178}Hf , ^{180}Hf , ^{90}Ti ,
 ^{91}Ti , ^{92}Ti , ^{90}Zr , ^{91}Zr , ^{92}Zr ,
 ^{90}Zr

312 Max-Planck Institut
Bottingerstrasse 6/8,
D34 Göttingen, West Germany

^{7}Li

313 München, Technischen Hochschule
Arcistrasse 21
8 München 2
Germany

^{79}Br , ^{81}Br , ^{40}Ca , ^{35}Cl , ^{50}Cr , ^{52}Cr ,
 ^{53}Cr , ^{54}Cr , ^{65}Cu , ^{100}Er , ^{170}Er ,
 ^{151}Eu , ^{153}Gd , ^{155}Gd , ^{176}Hf , ^{177}Hf ,
 ^{180}Hf , ^{204}Hg , ^{206}Hg , ^{60}Ni , ^{180}Os ,
 ^{192}Os , ^{207}Pb , ^{208}Pb , ^{196}Pt , ^{198}Pt ,
 ^{199}Pt , ^{196}Pt , ^{198}Pt , ^{34}S , ^{30}Si ,
 ^{144}Sm , ^{150}Sm , ^{122}Sn , ^{124}Sn , Tgs, ^{180}W ,
 ^{184}W , ^{176}Yb , ^{87}Zn , ^{70}Zn

314 Münster, Universität
44 Münster/Westfalen, Germany

^{40}Ca , ^{6}Li , ^{7}Li , ^{208}Pb , ^{87}Rb , Tgs,
 ^{180}W

315 Richard H. Stern
Nuclear Division
Kaiserstrasse 13
Frankfurt/Main, West Germany

^{7}Li

316 Rohstoff-Einfuhr. GmbH
Faunastrasse 61
4000 Düsseldorf 1, West Germany

^{198}Hg

317 Universität Düsseldorf
Universitätsstrasse 1
4-Düsseldorf, West Germany

^{198}Hg

318 Universität Ulm
Schellingstrasse 26
7 Stuttgart 1, West Germany

^{6}Li , ^{7}Li

319 der Universität Würzburg
Physikalisches Institut
Röntgenring 6
8700 Würzburg, Germany

^{158}Dy

INDIA

320 Bhabha Atomic Research Centre
Government of India
3rd Floor Mahatma Building
Bombay 1, India

^{10}B , ^{111}Cd , ^{122}Te , ^{123}Te

321 Geological Survey of India
Director General
Ratnakar Building
4 Chowringhee Lane
Calcutta 16, India

^{204}Pb , ^{87}Rb , ^{86}Sr , ^{86}Sr , SS

322 Physical Research Laboratory
Navrangpura
Ahmedabad - 380009
India

^{41}K , ^{204}Pb , ^{87}Rb , ^{86}Sr

323 Saha Institute of Nuclear Physics
92 Acharya Prafulla Chandra Road
Calcutta 9, India

^{57}Fe , ^{108}Pd

324 Tata Institute of Fundamental Research
Holiday Camp, Colaba
Bombay 5, India

^{130}Ba , ^{132}Ba , ^{63}Cu , ^{153}Eu , ^{198}Hg ,
 ^{199}Hg , ^{200}Hg , ^{201}Hg , ^{96}Mo , ^{190}Os ,
 ^{206}Pb , ^{208}Pb , ^{198}Pt , ^{90}Ti , ^{203}Ti ,
 ^{205}Ti

ISRAEL

- 325 Embassy of Israel
1621-22nd Street, N. W.
Washington, D. C. 20008
 ^6K , ^6Li , ^{120}Te
- 326 Government of Israel
Ministry of Defense
850 Third Avenue
New York, New York 10022
 ^{110}Cd , ^{112}Cd , ^{113}Cd , ^{114}Cd , ^{116}Cd ,
 ^{164}Dy
- 327 Hebrew University of Jerusalem, The
Jerusalem, Israel
 ^{40}Ca , ^{160}Er , ^{57}Fe , ^{154}Gd , ^{200}Hg ,
 ^{123}Te , ^{124}Te , ^{125}Te , ^{126}Te , ^{128}Te ,
 ^{130}Te , Tys
- 328 Landseas Corporation
1212 Avenue of the Americas
New York, New York 10036
 ^{54}Fe , ^{56}Fe , ^{24}Mg , ^{25}Mg , ^{26}Mg , ^{28}Si ,
 ^{150}Sm , ^{152}Sm , ^{86}Sr , ^{88}Sr
- 329 Tel-Aviv University
Ramat-Avit
Tel-Aviv, Israel
 ^{57}Fe , ^{119}Sn

ITALY

- 330 Istituto Nazionale di Fisica Nucleare
Via Valerio 2
Trieste, Italy
 ^{64}Zn , ^{66}Zn , ^{68}Zn , ^{70}Zn
- 331 Istituto Nazionale di Fisica Nucleare
Largo E. Fermi 2
50125 Florence, Italy
 ^{50}Cr , ^{92}Mo , ^{98}Mo , ^{100}Mo , SS,
 ^{90}Zr
- 332 Istituto Nazionale di Fisica Nucleare
Via A. Tari, 3
80130 Napoli, Italy
 ^{106}Cd , ^{50}Cr , ^{52}Cr , ^{62}Ni , ^{64}Ni ,
 ^{94}Ru , ^{32}S , ^{34}S , ^{28}Si , ^{64}Zn , ^{66}Zn ,
 ^{90}Zr
- 333 Istituto di Chimica Biologica
Faculta di Medicina E. Chirurgia
Universita di Roma
00185 Roma, Italy
 ^{57}Fe
- 334 Padova, Universita Degli Studi di
Via F. Marzolo 8
Padova, Italy
 ^{42}Ca , ^{48}Ca , ^{37}Cl , ^{50}Cr , ^{70}Ge , ^{72}Ge ,
 ^{74}Ge , ^{60}Ni , ^{62}Ni , SS, ^{48}Ti , ^{50}V ,
 ^{64}Zn , ^{66}Zn , ^{68}Zn

JAPAN

- 335 Deutsu Chemical and Pharmaceutical Company
CPO Box 1153
Osaka, Japan 530-91
 ^{63}Cu , ^{65}Cu
- 336 Japan Atomic Energy Research Institute
Tokai Research Establishment
Tokai-Mura, Naka-Gun, Ibaraki-Ken
Japan
 ^{151}Eu , ^{96}Mo , SS
- 337 Japan Radioisotope Association
Hon-Komagome 2 Chome 28
Bunkyo-Ku
Tokyo, Japan
 ^{107}Ag , ^{108}B , ^{11}B , ^{130}Ba , ^{134}Ba , ^{135}Ba ,
 ^{136}Ba , ^{79}Br , ^{81}Br , ^{40}Ca , ^{42}Ca , ^{44}Ca ,
 ^{46}Ca , ^{106}Cd , ^{108}Cd , ^{110}Cd , ^{112}Cd ,
 ^{114}Cd , ^{116}Cd , ^{140}Ce , ^{142}Ce , ^{35}Cl ,
 ^{50}Cr , ^{52}Cr , ^{54}Cr , ^{65}Cu , ^{160}Dy ,
 ^{162}Dy , ^{164}Dy , ^{166}Dy , ^{168}Er , ^{171}Er ,
 ^{151}Eu , ^{54}Fe , ^{56}Fe , ^{57}Fe , ^{58}Fe ,
 ^{74}Ge , ^{76}Ge , ^{78}Ge , ^{70}Ga , ^{76}Ge ,
 ^{176}Hf , ^{178}Hf , ^{179}Hf , ^{180}Hf , ^{115}In ,
 ^6Li , ^7Li , ^{24}Mg , ^{25}Mg , ^{26}Mg , ^{92}Mo ,
 ^{94}Mo , ^{95}Mo , ^{96}Mo , ^{97}Mo , ^{98}Mo ,
 ^{100}Mo , ^{142}Nd , ^{144}Nd , ^{146}Nd , ^{150}Nd ,
 ^{58}Ni , ^{60}Ni , ^{61}Ni , ^{62}Ni , ^{64}Ni ,
 ^{188}Os , ^{192}Os , ^{208}Pb , ^{209}Pb , ^{207}Pb ,
 ^{208}Pb , ^{104}Pd , ^{105}Pd , ^{106}Pd , ^{108}Pd ,
 ^{110}Pd , ^{107}Re , ^{94}Ru , ^{96}Ru , ^{100}Ru ,
 ^{101}Ru , ^{102}Ru , ^{104}Ru , ^{32}S , ^{34}S , ^{121}Sb ,
 ^{123}Sb , ^{74}Se , ^{76}Se , ^{77}Se , ^{80}Se ,
 ^{20}Si , ^{144}Sm , ^{147}Sm , ^{148}Sm , ^{152}Sm ,
 ^{154}Sm , ^{112}Sn , ^{114}Sn , ^{116}Sn , ^{117}Sn ,
 ^{118}Sn , ^{119}Sn , ^{120}Sn , ^{122}Sn , ^{124}Sn ,
 ^{88}Sr , ^{86}Sr , SS, ^{120}Te , ^{122}Te , ^{124}Te ,
 ^{126}Te , ^{128}Te , ^{130}Te , Tys, ^{48}Ti , ^{50}Ti ,
 ^{203}Tl , ^{205}Tl , ^{50}V , ^{182}W , ^{186}W ,
 ^{168}Yb , ^{172}Yb , ^{174}Yb , ^{176}Yb , ^{66}Zn ,
 ^{67}Zn , ^{68}Zn , ^{90}Zr , ^{91}Zr , ^{92}Zr
- 338 Kansai Electronics Co., Ltd.
8 Toganocho
Kitaku, Osaka, Japan
 ^{100}Pt , ^{28}Si , Tys, ^{68}Zn
- 339 Marubeni America Corporation
14 Henderson Drive
West Caldwell, N. J. 07006
 ^{150}Nd
- 340 Tokyo, University of
Azabu, Minato-Ku
Tokyo, Japan
 ^{26}Mg , ^{92}Mo

NETHERLANDS

- 341 Instituut voor Kernfysisch Onderzoek
Oosterringdijk 18
Amsterdam, Netherlands
 ^{10}B , ^{11}B , ^{100}Sm
- 342 N. V. Philips-Duphar
P. O. Box 2
Weesp, The Netherlands
 ^{112}Cd , ^{122}Te , ^{203}Tl

343 Reactor Centrum Nederland
Petten N. H., The Netherlands
 ^6Li , ^{150}Nd , ^{62}Ni , SS

344 Rijksinkoopbureau
(Netherlands Govt. Purchasing Office)
55 A Laan van Meerdervoort
The Hague, Netherlands

^{112}Cd , ^{114}Cd , ^{63}Cu , ^{166}Dy , ^{57}Fe ,
 ^{150}Gd , ^{152}Gd , ^{154}Gd , ^{70}Ge , ^{72}Ge ,
 ^{74}Ge , ^{76}Ge , ^{113}In , ^6Li , ^7Li , ^{24}Mg ,
 ^{26}Mg , ^{144}Nd , ^{146}Nd , ^{102}Pd , ^{104}Pd ,
 ^{106}Pd , ^{108}Pd , ^{185}Re , ^{187}Re , ^{102}Ru ,
 ^{32}S , ^{34}S , ^{36}S , ^{28}Si , ^{30}Si , ^{150}Sm ,
SS, ^{123}Te , ^{125}Te , ^{126}Te , Tys, ^{46}Ti ,
 ^{48}Ti , ^{50}Ti , ^{203}Tl , ^{180}W , ^{182}W ,
 ^{170}Yb , ^{172}Yb , ^{66}Zn , ^{92}Zr , ^{94}Zr

345 State University of Groningen
Westersingel 34
Groningen
The Netherlands

^{12}C , ^{42}Ca , ^{108}Cd , ^{52}Cr , ^{50}Cr , ^{143}Nd ,
 ^{145}Nd , ^{150}Nd , ^{104}Pd , ^{106}Pd , ^{108}Ru ,
 ^{28}Si , ^{150}Sm , Tys, ^{64}Zn

346 University of Nijmegen
Faculty of Science
Toernooiveld
Nijmegen, The Netherlands

^{63}Cu

347 Vrije Universiteit
Amsterdam, The Netherlands

^{109}Ag , ^{70}Ge , ^{76}Ge , ^{113}In , ^{102}Pd ,
 ^{104}Pd , SS

NEW ZEALAND

348 Office of the Minister
New Zealand Embassy
1145-19th Street
Washington, D. C. 20036

^{91}K , ^{87}Rb

NORWAY

349 Bergen, University of
Bergen, Norway

^{141}Er , ^{142}Nd , ^{61}Eu

350 Institutt for Atomenergi
Kjeller, Norway

^{40}Ca , ^{98}Mo

PORTUGAL

351 Magnetrom-Comercio e Industria de Aparelhagem Elec
Rua Fialho de Almeida, 36-A
Lisbon 1, Portugal

^{166}Dy , ^{108}Pd , ^{116}Sn , ^{128}Te , ^{92}Zr

RUSSIA

352 V/K Technabexport, G-200,
Smolenskaja+ Sennaja 32/34
Moscow, USSR (Russia)

^{204}Pb , Tys

SCOTLAND

353 Nuclear Enterprises Limited
Sighthill
Edinburgh 11, Scotland

^6Li

354 Scottish Research Reactor Centre
East Kilbride, Glasgow, Scotland

^{208}Pb

SOUTH AFRICA

355 J. A. Ewing and McDonald, Inc.
51 Madison Avenue
New York, New York 10010

^{88}Sr , ^{92}Zr , ^{94}Zr

356 G. Roetger
P. O. Box 293
Pretoria, South Africa

^7Li

357 Stellenbosch, University of
Stellenbosch, South Africa

^{56}Fe , Tys, ^{48}Ti

SWEDEN

358 Aktiebolaget Atomenergi
Studsvik,
Nykoping, Sweden

^{108}B , Tys, ^{168}Yb

359 Chalmers University of Technology
Gibraltargatan 3-b
Gothenburg, Sweden

^{63}Cu , ^{57}Fe

360 Forskningsinstitutet för Atomfysik
Stockholm 50, Sweden

^{204}Hg , ^{206}Pb , ^{208}Pb , ^{98}Ru , ^{203}Tl

361 Stockholm, University of
Vanadisvagen 9
Stockholm VA, Sweden

^{96}Mo , ^{96}Ru , ^{122}Sn

362 Uppsala, University of
Uppsala, Sweden

^{52}Cr , ^{54}Cr , ^{56}Fe , ^{57}Fe , ^{70}Ge , ^{238}U ,
 ^{24}Mg , ^{92}Mo , ^{100}Mo , ^{102}Pd , ^{104}Pd ,
 ^{96}Ru , ^{100}Ru , ^{104}Ru , ^{123}Sb , ^{112}Sn ,
 ^{116}Sn , ^{118}Sn , ^{122}Te , ^{124}Te , Tys, ^{46}Ti ,
 ^{64}Zn , ^{66}Zn

SWITZERLAND

363 Bern Universität
3000 Bern, Switzerland

^{110}Cd

364 Ecole Polytechnique Federale de Lausanne
Federal Inst. of Technology
33 Av. de Cour
Lausanne, Switzerland

^{63}Cu , ^{65}Cu

365 Eidg. Institut für Reaktorforschung
Würenlingen, Switzerland

^{155}Gd

366 Eidg. Technische Hochschule
8049 Zürich, Switzerland

^{42}Ca , ^{56}Fe , Tgs, ^{48}Ti , ^{90}Zr

367 Erlbourg, University of
1700 Fribourg, Switzerland

Tgs, ^{168}Yb , ^{176}Yb

368 European Organization of Nuclear Research
1211 Geneva 23, Switzerland

^{199}Hg , ^{201}Hg , ^{202}Hg , ^{85}Rb ,
 ^{87}Rb

369 Geneva, Université de
Geneva, Switzerland 1211

^{40}K , ^{87}Rb , ^{88}Sr

370 Zürich, der Universität
8001 Zürich, Switzerland

^{11}B , ^{54}Fe , ^{56}Fe , ^6Li , ^{120}Sn , Tgs,
 ^{66}Zn , ^{68}Zn

TURKEY

371 Hacettepe University
Ankara, Turkey

^{87}Rb

YUGOSLAVIA

372 Nuklearni Institut Jozef Stefan
Jamova 39
Ljubljana, Yugoslavia

^6Li

II. ALPHABETICAL LIST OF ISOTOPES,
CROSS-REFERENCED TO CUSTOMER NUMBERS

A. DOMESTIC

Antimony 121	Calcium 040
17, 37, 41	9, 19, 30, 33, 90, 115, 144, 158, 177
Antimony 123	Calcium 042
9, 41, 43, 76	9, 18, 19, 77, 93, 99, 104, 138, 140
Barium 130	Calcium 043
75	19, 40, 102
Barium 132	Calcium 044
107	1, 18, 19, 76, 99, 107, 188
Barium 134	Calcium 046
30, 100	18, 19, 187
Barium 135	Calcium 048
43, 76, 81, 91, 106, 131, 166, 167, 188	9, 18, 19, 22, 29, 76, 77, 81, 90, 153, 166, 197
Barium 136	Cerium 136
9, 19, 91, 104, 166, 190	81
Barium 138	Cerium 140
41, 131, 159, 166, 190	41, 64, 107, 153, 166, 190
Boron 010	Cerium 142
5, 9, 14, 20, 31, 43, 49, 60, 65, 66, 76, 77, 78, 81, 95, 103, 115, 136, 146, 166, 191, 199	18, 114, 190
Boron 011	Chlorine 035
5, 31, 61, 70, 77, 106, 115, 136, 166, 172	25, 35, 58, 98, 113, 164, 168
Bromine 079	Chlorine 037
41, 42, 76, 81, 150, 185	18, 31, 35, 50, 58, 106, 113, 116, 159, 164, 197
Bromine 081	Chromium 050
18, 42, 76, 81, 150, 168	17, 29, 30, 31, 41, 50, 51, 58, 64, 107, 165, 166
Cadmium 106	Chromium 052
17, 50, 77, 167	30, 58, 190
Cadmium 108	Chromium 053
31, 62, 107	31, 43, 58, 76, 81, 91, 99, 167, 190
Cadmium 110	Chromium 054
68, 97, 153	50, 99, 144, 145
Cadmium 111	Copper 063
43, 81, 97, 106, 167	1, 9, 17, 25, 30, 36, 58, 60, 74, 76, 136, 140, 151, 166, 184, 190
Cadmium 112	Copper 065
41, 94, 97, 105	1, 21, 30, 33, 43, 50, 58, 60, 76, 99, 140, 159, 167, 190
Cadmium 113	Dysprosium 156
18, 19, 26, 27, 31, 76, 83, 97, 102, 106, 149, 162, 199	29
Cadmium 114	Dysprosium 158
15, 31, 41, 89, 96, 97, 144, 152, 199	18, 60, 91, 165, 166
Cadmium 116	Dysprosium 161
30, 31, 41, 97	9, 60, 81, 102, 117

Dysprosium 163	Germanium 074
30, 83, 102, 166	18, 91, 99, 157, 169
Dysprosium 164	Germanium 076
159	18, 99
Erbium 164	Hafnium 174
18, 107, 166	31
Erbium 166	Hafnium 176
18, 36, 91, 166	30, 194
Erbium 167	Hafnium 179
60, 81, 146	19, 172
Erbium 168	Hafnium 180
18, 138, 153, 165	166
Erbium 170	Indium 113
37, 159, 166	17, 107, 166
Europium 151	Indium 115
31, 64, 81, 107, 166, 190	41
Europium 153	Iridium 191
31, 84, 157, 159, 162, 166	9
Gadolinium 152	Iridium 193
3, 62	9
Gadolinium 154	Iron 054
3, 190	1, 9, 12, 30, 31, 41, 58, 64, 76, 77, 107, 115, 140, 142, 145, 166, 180, 181
Gadolinium 155	Iron 056
8, 114, 190	12, 17, 18, 30, 31, 44, 77, 98, 115, 144, 151, 153, 166
Gadolinium 156	Iron 057
3, 31, 91	4, 17, 18, 28, 31, 33, 42, 50, 51, 54, 57, 63, 76, 80, 82, 83, 97, 98, 102, 106, 117, 119, 135, 136, 153, 154, 167, 174, 178, 182
Gadolinium 157	Iron 058
17, 106	12, 21, 31, 46, 107, 142, 145, 166
Gadolinium 158	Lanthanum 138
166, 169	81
Gadolinium 160	Lead 204
24, 68, 81, 159, 166	9, 18, 31, 48, 50, 98, 100, 115, 143, 167, 188
Gallium 069	Lead 205
98, 138, 150	9, 18, 28, 67, 140, 160, 172
Gallium 071	Lead 206
30, 81, 98	2, 30, 31, 41, 50, 89, 97, 98, 99, 159, 188
Germanium 070	Lead 207
30, 31, 128	9, 18, 30, 31, 41, 69, 97, 106, 111, 143, 149, 188, 194
Germanium 072	
18, 30, 157	
Germanium 073	
17, 157	

Lead 208

18, 29, 30, 31, 39, 41, 48, 77, 91, 98,
102, 144, 159, 160, 166, 188

Lithium 006

7, 9, 13, 18, 31, 35, 43, 50, 51, 68, 71,
76, 77, 79, 97, 109, 115, 123, 127, 128,
138, 142, 144, 155, 156, 166, 171, 172, 180,
191, 192, 199

Lithium 007

6, 11, 18, 31, 33, 45, 51, 52, 53, 59, 71,
83, 101, 120, 122, 130, 139, 161, 163, 166,
170, 172, 186, 189, 195

Lutetium 175

24

Lutetium 176

3, 19, 30, 31, 114, 172

Magnesium 024

15, 18, 69, 77, 102, 113, 136, 150, 153,
166

Magnesium 025

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Magnesium 026

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ISOTOPE	DOMESTIC			FOREIGN			PROJECT			TOTAL		
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLAR
ANTIMONY-121	3	200.0		310	2	200.0	310			5	400.0	620
ANTIMONY-123	3	137.2		212	4	250.0	387	1	250.0	8	637.2	987
BARIUM-130	1	5.0		120	4	95.0	2400			5	100.0	2520
BARIUM-132	4	651.8	6919	1		10.0	72			5	661.8	6991
BARIUM-134				5		450.0	862	3	260.0	8	710.0	1486
BARIUM-135	6	431.3	813	7		407.0	643	4	187.0	17	1025.3	1681
BARIUM-136	5	230.0	330	5		320.0	448	2	359.8	12	909.8	1199
BARIUM-137				1		100.0	105			1	100.0	105
BARIUM-138	4	1102.0	165	1		2900.0	300	1	333.3	6	3435.3	515
BORON-10	21	3441000.0	30987	30		734400.0	6373	11	757500.0	62	4932900.0	42770
BORON-11 (BORIC)	1	1330.0	159	1		500.0	60	1	1000.0	3	2830.0	339
BORON-11 ELEMENT	11	57000.0	1954	11		37500.0	1350	4	42500.0	26	137000.0	4892
BROMINE-79	6	366.0	1171	11		1155.0	3673	1	20.0	18	1541.0	4902
BROMINE-81	5	317.0	982	3		150.0	409	3	90.0	11	557.0	1730
CADMIUM-106	2	25.0	293	11		455.0	6613	2	25.0	15	505.0	7250
CADMIUM-108	2	95.0	1543	4		120.0	1267	1	50.0	812	265.0	3623
CADMIUM-110	4	450.0	310	9		2576.9	1703			13	3026.9	2013
CADMIUM-111	3	376.9	245	2		1510.0	981	3	370.0	8	2256.9	1467
CADMIUM-112	6	7200.0	3240	11		54890.0	24700			17	62090.0	27940
CADMIUM-113	13	3287.0	2465	2		300.0	225	3	550.0	412	4137.0	3102
CADMIUM-114	10	72410.0	28974	12		2625.0	1050	2	300.0	120	75335.0	30144
CADMIUM-116	2	175.0	175	9		850.0	850	2	700.0	700	1725.0	1725
CALCIUM-40	9	45731.0	11527	12		1620.0	1198	3	2025.0	506	49376.0	13232
CALCIUM-42	11	341.0	2883	12		762.0	6402	3	250.0	2125	1353.0	11410
CALCIUM-43	3	100.0	3400							3	100.0	3400
CALCIUM-44	6	2490.0	5192	16		5825.0	12737	1	100.0	230	8415.0	18160
CALCIUM-46	3	4.0	2340	6		84.0	50615	1	3.0	1225	91.0	54180
CALCIUM-48	10	435.0	12710	22		544.0	13228	7	319.0	4397	1298.0	34335
CARBON-12				1		100.0	430			1	100.0	430
CERIUM-136				2		305.0	6110	1	10.0	195	315.0	6305
CERIUM-140	6	6933.0	1040	2		830.0	125		2856.0	428	10619.0	1593
CERIUM-142	2	70.0	98	10		395.7	555		109.0	152	574.7	805
CHLORINE-35	6	2750.0	1375	13		14388.0	7194	1	100.0	50	17238.0	8619
CHLORINE-37	9	2390.0	3316	12		10013.5	14018	4	3529.0	4274	15932.5	21608
CHROMIUM-50	11	1762.0	4246	26		3261.1	8214	5	395.0	1027	5418.1	13488
CHROMIUM-52	2	80.0	44	12		1640.0	902	1	200.0	110	1920.0	1056
CHROMIUM-53	6	275.5	240	9		1078.0	970	3	410.0	369	1763.5	1579
CHROMIUM-54	4	120.0	750	11		415.7	2283	1	20.0	125	555.7	3158
COPPER-63	13	4250.0	850	14		3030.0	606	7	3116.0	623	10396.0	2079
COPPER-65	12	1644.5	546	13		8553.0	2993	4	270.0	94	10467.5	3634
DEUTERATED POLYE								1	747.0	1	747.0	
DYSPROSIUM-156				2		56.0	2074	1	10.0	137	66.0	2211
DYSPROSIUM-158	5	28.0	391	3		146.0	4174	2	20.0	482	194.0	5047
DYSPROSIUM-160				9		1135.0	2515			9	1135.0	2515
DYSPROSIUM-161	3	325.0	130	7		900.0	360	2	300.0	120	1525.0	610
DYSPROSIUM-162				5		775.0	310			5	775.0	310
DYSPROSIUM-163	2	1500.0	525	7		842.0	295	2	7465.0	1950	9807.0	2770
DYSPROSIUM-164	1	200.0	50	10		3320.0	830			11	3520.0	880
ERBIUM-164	1	100.0	375	2		80.0	300	1	368.0	1042	548.0	1717
ERBIUM-166	3	930.0	2659	2		300.0	90	1	412.0	211	1642.0	2960
ERBIUM-167	1	50.0	30	6		1372.0	831	2	600.0	360	2022.0	1221
ERBIUM-168	3	260.0	192	4		3330.0	2217		261.0	130	3851.0	2540
ERBIUM-170	2	200.0	100	4		700.0	350		7834.0	2734	8734.0	3184
EUROPIUM-151	3	180.0	81	6		1541.0	701	3	650.0	292	2371.0	1074
EUROPIUM-153	3	680.0	340	6		865.0	440	2	5577.0	2037	7122.0	2817
GADOLINIUM-152	1	15.0	255					1	40.0	680	55.0	935
GADOLINIUM-154	1	10.0	102	7		726.1	3895		53.0	164	789.1	4162

ISOTOPE	DOMESTIC			FOREIGN			PROJECT			TOTAL		
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLAR
GADOLINIUM-155	3	30.0	165	10	940.0	3225				13	970.0	3390
GADOLINIUM-156	2	680.0	612	3	450.0	405	1	1502.0	971	6	2632.0	1988
GADOLINIUM-157	2	800.0	800	4	812.0	2533				6	1612.0	3333
GADOLINIUM-158	1	200.0	110	1	100.0	55	1	25.0	50	3	325.0	215
GADOLINIUM-160	5	750.0	375	5	900.0	450	4	18049.0	7652	14	19699.0	8477
GALLIUM-69	3	350.0	192	2	1591.0	875				5	1941.0	1067
GALLIUM-71	1	150.0	150	2	150.0	150	3	1100.0	1100	6	1400.0	1400
GERMANIUM-70	1	400.0	180	13	5401.0	1772	2	565.0	169	16	6366.0	2121
GERMANIUM-72	1	167.0	50	3	407.0	122	3	3811.0	1143	7	4385.0	1315
GERMANIUM-73	2	188.0	207	2	150.0	150				4	338.0	357
GERMANIUM-74	4	850.0	170	5	990.0	198	1	200.0	40	10	2040.0	408
GERMANIUM-76	1	30.0	66	8	810.0	1788	3	141.5	327	12	981.5	2181
HAFNIUM-174					14.0	980	1	5.0	116	1	19.0	1096
HAFNIUM-176	1		3	3	125.0	537	2	130.0	559	6	255.0	1096
HAFNIUM-177				3	435.0	506				3	435.0	506
HAFNIUM-178				4	430.0	255				4	430.0	255
HAFNIUM-179	2	80.0	124	6	337.0	522				8	417.0	646
HAFNIUM-180	1			7	730.0	430	1	100.0	50	9	830.0	480
INDIUM-113	2	200.0	1600	6	244.5	2084	2	76.0	592	10	520.5	4276
INDIUM-115	1	150.0	67	2	200.0	90				3	350.0	157
IRIDIUM-191				1	10.0	50	1	50.0	250	2	60.0	300
IRIDIUM-193				1	10.0	50	1	50.0	250	2	60.0	300
IRON-54	14	6531.0	9796	21	2183.3	3305	5	933.0	1399	40	9647.3	14501
IRON-56	14	25550.0	2455	10	2950.0	342	5	6644747.0	473162	29	6673247.0	475960
IRON-57	40	4261.0	12517	50	12078.0	36378	5	701.0	1213	95	17040.0	50109
IRON-58	5	252.0	5553	8	326.0	8476	2	26.0	676	15	604.0	14705
LANTHANUM-138				3	56.1	315	1	100.0	100	4	156.1	415
LEAD-204	6	1237.5	6875	20	1057.8	6209	5	300.0	1978	31	2595.3	15062
LEAD-205	4	11.5	6325	1	5.0	2750	2	5.5	2200	7	22.0	11275
LEAD-206	8	1255.0	753	19	2024.4	1517	5	1075.0	819	32	4354.4	3089
LEAD-207	6	841.0	841	10	7955.5	3876	6	1205.0	1153	22	10001.5	5871
LEAD-208	13	19031.0	2660	27	39615.0	7477	7	3975.0	795	47	62621.0	11132
LEAD, RADIOGENIC							1	846000.0	211	1	846000.0	211
LITHIUM-6	41	8705300.0	13416	45	7491930.0	16279	18	4135000.0	7978	104	20332230.0	37673
LITHIUM-7	112	548494996.0	153598	26	32347000.0	9879	6	2975000.0	1078	144	583816996.0	164555
LUTETIUM-175	1	143.0	50	4	686.0	255				5	829.0	305
LUTETIUM-176	3	8.2	352	7	82.0	3526	2	31.0	1333	12	121.2	5211
MAGNESIUM-24	12	4875.0	1706	18	3935.0	1378	2	650.0	227	32	9460.0	3312
MAGNESIUM-25	7	2765.0	6082	7	770.0	1925	4	1100.0	2373	18	4635.0	10380
MAGNESIUM-26	8	1755.0	2544	15	2300.0	3335	3	750.0	1087	26	4805.0	6967
MERCURY-196				9	572.0	216872	1	1.0	191	10	573.0	217063
MERCURY-198	4	65.0	715	8	160.0	1660				12	225.0	2375
MERCURY-199	4	95.0	617	7	318.0	2067				11	413.0	2684
MERCURY-200	5	99.0	396	7	175.0	700				12	274.0	1096
MERCURY-201	3	63.0	803	6	85.0	908	1	98.0	1249	10	246.0	2961
MERCURY-202	3	70.0	1245	2	20.0	320				5	90.0	1565
MERCURY-204	7	218.0	1830	10	615.0	5400	3	51.0	510	20	884.0	7740
MOLYBDENUM-C92	6	1430.0	440	12	5960.0	1831	4	1165.0	369	22	8555.0	2640
MOLYBDENUM-C94	8	1600.0	800	7	1030.0	517	1	65.0	32	16	2695.0	1349
MOLYBDENUM-C95	5	937.0	281	2	75.0	22	8	3895.0	1188	15	4907.0	1492
MOLYBDENUM-C96	3	650.0	162	6	2165.0	541	1	173.0	43	10	2988.0	747
MOLYBDENUM-C97	4	770.0	346	2	125.0	56	6	1895.0	858	12	2790.0	1261
MOLYBDENUM-C98	4	550.0	550	12	40750.0	40750	2	352.0	352	18	41652.0	41652
MOLYBDENUM-100	2	250.0	150	10	765.0	442	2	120.0	42	14	1135.0	635
NEODYMIUM-142	2	150.0	90	10	2540.0	1526	2	90.0	98	14	2780.0	1714
NEODYMIUM-143	1	60.0	54	3	250.0	230	2	110.0	140	6	420.0	424
NEODYMIUM-144	7	1016.0	305	3	750.0	260	2	300.0	110	12	2066.0	675

ISOTOPE	DOMESTIC			FOREIGN			PROJECT			TOTAL	
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS DOLLAR
NEODYMIUM-145	3	2340.0	2925	7	875.0	743				10	3215.0 3668
NEODYMIUM-146	7	683.0	307	4	900.0	405	6	860.0	414	17	2443.0 1127
NEODYMIUM-148	5	340.0	391	5	440.0	506	4	330.0	379	14	1110.0 1276
NEODYMIUM-150	8	1127.0	1521	12	2310.0	3120	8	1387.0	1503	28	4824.0 6145
NICKEL-58	13	4103.0	647	25	27478.0	4175	8	26927.0	3360	46	58508.0 8183
NICKEL-60	12	14050.0	2810	13	6365.0	1303	3	11669.0	1670	28	32084.0 5783
NICKEL-61	3	40.0	192	8	1400.0	6064	7	724.0	3134	18	2164.0 9390
NICKEL-62	13	17930.0	28484	21	12250.0	19386	4	7633.0	8891	38	37813.0 56761
NICKEL-64	5	145.0	903	9	635.0	4321	7	370.0	2162	21	1150.0 7387
NITROGEN-15 CHEM							1	183000.0	66085	1	183000.0 66085
OSMIUM-186				4	30.0	600				4	30.0 600
OSMIUM-188	3	280.0	770	6	320.0	880		50.0	137	9	650.0 1787
OSMIUM-189				5	400.0	905	1	175.0	393	6	675.0 1298
OSMIUM-190	7	1403.0	2244	7	595.0	952		76.0	121	14	2074.0 3318
OSMIUM-192	8	1400.0	1330	9	830.0	788	2	450.0	427	19	2680.0 2546
PALLADIUM-102	2	22.0	1210	9	141.0	7755	1	3.0	165	12	166.0 9130
PALLADIUM-104	8	405.0	1721	9	360.0	1530	3	370.0	1572	20	1135.0 4823
PALLADIUM-105	5	245.0	501	5	240.0	540				10	485.0 1041
PALLADIUM-106	4	300.0	585	7	490.0	955	2	150.0	292	13	940.0 1833
PALLADIUM-108	5	1300.0	2080	10	805.0	1288	5	282.0	451	20	2387.0 3819
PALLADIUM-110	3	145.0	529	6	500.0	1825	2	300.0	1095	11	945.0 3449
PLATINUM-190				1	2.0	310				1	2.0 310
PLATINUM-192	4	75.0	1593	2	40.0	850	4	50.0	1062	10	165.0 3506
PLATINUM-194	8	320.0	820	8	1150.0	1150	4	2300.0	1696	20	4270.0 3666
PLATINUM-195	2	80.0	220	1	200.0	550	1	300.0	825	4	580.0 1595
PLATINUM-196	7	780.0	1560	10	1180.0	2360	1	100.0	200	18	2060.0 4120
PLATINUM-198	7	248.0	992	8	1110.0	4440	3	297.5	1190	18	1655.5 6622
POTASSIUM-39	2	200.0	160							2	200.0 160
POTASSIUM-40	2	20.0	2550	3	24.0	1170				5	44.0 3720
POTASSIUM-41	9	593.1	2965	9	207.0	1035	1	43.0	215	19	843.1 4215
RHENIUM-185	1	100.0	65	2	500.0	325	1	500.0	325	4	1100.0 715
RHENIUM-187	2	225.0	90	4	425.0	170				6	650.0 260
RUBIDIUM-85	2	70.0	61	3	160.0	88				5	230.0 149
RUBIDIUM-87	16	2180.0	7414	14	640.0	2178				30	2820.0 9592
RUTHENIUM-096	3	60.0	600	10	448.0	4480	3	75.0	750	16	583.0 5830
RUTHENIUM-098				1	7.0	231	1	15.0	202	2	22.0 433
RUTHENIUM-099	1	70.0	266	3	55.0	209	1	100.0	380	5	225.0 855
RUTHENIUM-100				2	120.0	630				2	120.0 630
RUTHENIUM-101		27.0	81	2	25.0	75				2	52.0 156
RUTHENIUM-102	2	1094.0	1695	4	157.0	243				6	1251.0 1939
RUTHENIUM-104	1	62.0	161	8	734.0	1908	2	110.0	310	11	906.0 2379
SAMARIUM-144	4	349.0	281	15	1622.5	1283	4	437.0	399	23	2408.5 1964
SAMARIUM-147	5	620.0	188	2	150.0	45	2	70.0	65	9	840.0 298
SAMARIUM-148	6	620.0	371	3	1770.0	2190	1	200.0	80	10	2590.0 2641
SAMARIUM-149	4	1120.0	424	4	452.0	158	1	100.0	35	9	1672.0 618
SAMARIUM-150	3	210.0	88	3	600.0	250				6	810.0 338
SAMARIUM-152	5	1177.0	176	11	6000.0	920	5	1704.0	268	21	8881.0 1364
SAMARIUM-154	5	925.0	239	9	1764.0	539	2	51000.0	5385	16	58689.0 6163
SELENIUM-74	2	420.0	44100	2	81.0	9305	1	10.0	803	5	511.0 54208
SELENIUM-76	2	130.0	247	9	945.0	1795	1	27.0	51	12	1102.0 2093
SELENIUM-77	5	1634.0	3431	3	320.0	680	6	740.0	1245	14	2694.0 5356
SELENIUM-78	2	87.0	117	5	740.0	999				7	827.0 1116
SELENIUM-80	3	180.0	162	9	1710.0	1544	2	1100.0	990	14	2990.0 2696
SELENIUM-82	2	150.0	277	3	250.0	530	5	500.0	3517	10	900.0 4324
SILICON-28	7	1950.0	2242	10	2049.9	2357	1	600.0	690	18	4599.9 5289
SILICON-29	7	735.0	3858	4	890.0	4672	2	120.0	630	13	1745.0 9161
SILICON-30	3	1330.0	5386	5	2225.0	10511	4	342.0	1312	27	3897.0 17209

ISOTOPE	DOMESTIC			FOREIGN			PROJECT			TOTAL		
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLAR
SILVER-107	8	3439.0	1547	8	1790.0	810				16	5229.0	2358
SILVER-109	3	310.0	186	7	1180.0	708	1	120.0	72	11	1610.0	966
STRONTIUM-84	1	5.0	300	12	1054.0	34071	2	65.0	1996	15	1124.0	36367
STRONTIUM-86	11	4524.0	2155	6	590.0	301	6	1495.0	785	23	6609.0	3241
STRONTIUM-87	4	220.0	151	4	3030.0	2121				8	3250.0	2272
STRONTIUM-88	20	8430.0	421	8	11600.0	805	1	500.0	50	29	20530.0	1276
SULFUR-32	2	950.0	950	4	370.0	370	1	50.0	50	7	1370.0	1370
SULFUR-33	6	720.0	1944	3	12.0	1220	1	2.0	17	8	734.0	3181
SULFUR-34	4	110.0	552	8	1552.0	2381	1	313.0	1694	13	1975.0	4627
SULFUR-36				3	22.0	2732				3	22.0	2732
TELLURIUM-120	1	10.0	430	2	12.0	1486	1	12.0	1173	4	34.0	3089
TELLURIUM-122	4	11755.0	79346	13	4280.0	28890	3	241.0	1218	20	16276.0	109455
TELLURIUM-123				5	183.0	2370				5	183.0	2370
TELLURIUM-124	6	2880.0	4986	25	12855.0	27872	8	9930.0	23087	39	25665.0	55946
TELLURIUM-126	2	200.0	230	6	1000.0	925				8	1200.0	1155
TELLURIUM-126	4	830.0	498	9	567.0	380	1	500.0	300	14	1897.0	1178
TELLURIUM-128	6	2820.0	846	14	3024.0	962	1	2000.0	600	21	7844.0	2408
TELLURIUM-130	5	680.0	170	11	4850.0	1212				16	5530.0	1382
THALLIUM-203	13	139063.0	66968	9	79750.0	35475	3	1225.0	617	25	220038.0	103061
THALLIUM-205	2	450.0	88	5	1950.0	390	2	1400.0	280	9	3800.0	760
TIN-112	3	585.0	6615	9	1306.0	27161				12	1891.0	33776
TIN-114	1	15.0	90	8	290.0	1557				9	305.0	1647
TIN-115	1	50.0	750							1	50.0	750
TIN-116	7	425.0	127	9	1815.0	585	2	20.0	50	18	2260.0	763
TIN-117	3	310.0	155	4	740.0	370	1	100.0	50	8	1150.0	575
TIN-118	2	3200.0	1120	7	3365.0	707				9	6565.0	1827
TIN-119	4	700.0	245	12	7083.0	2495	1	250.0	87	17	8033.0	2827
TIN-120	4	1400.0	350	9	2035.0	551				13	3435.0	901
TIN-122	1	150.0	97	12	4130.0	2684				13	4280.0	2782
TIN-124	5	1275.0	701	12	2040.0	1155	1	20.0	50	18	3335.0	1906
TITANIUM-46	3	285.0	400	11	1245.0	1759	3	150.0	180	17	1681.0	2339
TITANIUM-47	1	30.0	40	4	65.0	154	2	138.0	146	7	233.0	340
TITANIUM-48	4	1050.0	210	13	2760.0	689	1	20.0	4	18	3830.0	903
TITANIUM-49	1	30.0	69	2	40.0	96	1	100.0	115	4	170.0	280
TITANIUM-50	3	153.5	268	7	870.0	1522	1	300.0	525	11	1323.5	2316
TUNGSTEN-180	3	106.0	1800	6	27.0	6075	2	11.0	1727	11	144.0	9602
TUNGSTEN-182	1	200.0	50	3	600.0	150	3	850.0	225	7	1650.0	425
TUNGSTEN-183	1	83.3	50	1	200.0	120	1	100.0	60	3	383.3	230
TUNGSTEN-184	1	166.0	50	4	1200.0	360	2	250.0	100	7	1616.0	510
TUNGSTEN-185				6	1150.0	402	2	250.0	87	8	1400.0	490
VANADIUM-50				3	13.0	1560				3	13.0	1560
YTTERBIUM-168	1	66.5	980	5	257.2	2300				6	323.7	3281
YTTERBIUM-170				3	550.0	1480	2	443.0	886	5	993.0	2366
YTTERBIUM-171	3	861.5	387	6	1020.0	545				9	1881.5	932
YTTERBIUM-172	1	125.0	50	1	125.0	50		212.0	84	2	462.0	184
YTTERBIUM-173				4	650.0	260	2	1100.0	440	6	1750.0	700
YTTERBIUM-174				4	950.0	275	2	1000.0	250	6	1950.0	525
YTTERBIUM-176	5	1133.0	396	6	1720.0	603	5	1100.0	400	16	3953.0	1399
ZINC-64	7	2350.0	692	11	2945.0	816	5	625.0	174	23	5920.0	1683
ZINC-66	1	50.0	27	11	1211.0	666	3	1400.0	770	15	2661.0	1463
ZINC-67	7	352.5	1304	7	835.0	3089	2	270.0	999	16	1457.5	4392
ZINC-68	23	30023.0	24018	17	9504.0	7603				40	39527.0	31621
ZINC-70	2	25.0	775	4	95.0	2765	2	70.0	1702	8	190.0	5242
ZIRCONIUM-90	4	1330.0	332	16	1825.0	546	4	1700.0	425	24	4855.0	1303
ZIRCONIUM-91	3	147.5	155	5	549.0	605	2	348.0	365	10	1044.5	1125
ZIRCONIUM-92	4	240.0	228	10	780.0	803	1	200.0	190	15	1220.0	1221
ZIRCONIUM-94	2	70.0	73	7	525.0	580	1	23.0	24	10	618.0	677

ISOTOPE	D O M E S T I C			F O R E I G N			P R O J E C T			T O T A L		
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLAR
ZIRCONIUM-96				6	403.1	2309	1	100.0	400	7	503.1	2709
LOANS										125	5040803.0	3231
TOTAL	1116	561231487.3	712973	1727	41167049.5	940541	452	18812861.6	715650	3420	623252201.4	2372396

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