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OPERATIONS DIVISION

STABLE ISOTOPE CUSTOMER LIST AND SUMMARY
OF SHIPMENTS - FY 1984

Compiled by

J. G. Tracy

Date Published: December 1984

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Prepared by the
OAK RIDGE NATIONAL LABORATORY
Oak Ridge, Tennessee 37831
operated by
MARTIN MARIETTA ENERGY SYSTEMS, INC.
for the
DEPARTMENT OF ENERGY
under Contract No. DE-AC05-84OR21400

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STABLE ISOTOPE CUSTOMER LIST AND SUMMARY

OF SHIPMENTS - FY 1984

J. G. Tracy

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; and
4. tabulation of the shipments, quantities, and dollars for domestic, foreign, and project categories for each isotope.

Other reports in this series are:

ORNL/TM-1928	ORNL/TM-3146	ORNL/TM-5853	ORNL/TM-7764
ORNL/TM-2038	ORNL/TM-3543	ORNL/TM-6241	ORNL/TM-8302
ORNL/TM-2401	ORNL/TM-3987	ORNL/TM-6710	ORNL/TM-8704
ORNL/TM-2747	ORNL/TM-5089	ORNL/TM-7214	ORNL/TM-8979

We wish to thank Becky Verastegui of the Business Systems Department of the ORGDP Computing Technology Center for her assistance in developing the tabulations.

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

A. DOMESTIC

- 1 Abilene Christian College
Box 8208
Abilene, Texas 79699
 ^{54}Fe , ^{62}Ni
- 2 Aer. space Corporation
P. O. Box 91055
Los Angeles, California 90009
 ^{33}S
- 3 Alfred University
Alfred, New York 14802
 ^6Li , ^7Li
- 4 Amersham Corporation
Arlington Heights, Illinois 60005
 ^{152}Sm
- 5 Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439
 ^{107}Ag , ^{108}Ag , ^{63}Cu , ^{65}Cu , ^{170}Er ,
 ^{152}Eu , ^{54}Fe , ^{56}Fe , ^{57}Fe , ^{157}Gd , ^6Li ,
 ^7Li , ^{24}Mg , ^{90}Mo , ^{94}Mo , ^{98}Mo , ^{144}Nd , ^{146}Nd , ^{60}Ni , ^{62}Ni , ^{64}Ni , ^{208}Pb ,
 ^{76}Se , ^{147}Sm , ^{114}Sn , ^{116}Sn , ^{117}Sn ,
 ^{118}Sn , ^{119}Sn , ^{120}Sn , ^{122}Sn , SS, TGS,
 ^{201}Tl
- 6 Arizona State University
Tempe, Arizona 85281
 ^{63}Cu , ^{65}Cu , ^{60}Ni , SS
- 7 Arizona, University of
Post Office Drawer 4100
Tucson, Arizona 85721
 ^{152}Sm
- 8 Bell Labs
P. O. Box 800
Short Hills, New Jersey 07078
New Jersey
 ^{57}Fe
- 9 Benedict College
Auxiliary Services
Harden and Blanding Streets
Columbia, South Carolina 29294
 ^{60}Ni
- 10 Bicon Corporation
12345 Kinsman Road
Newbury, Ohio 44065
 ^6Li
- 11 Bio Products Ophthalmics, Inc.
369 Bayview Avenue
Amityville, New York 11701
 ^{113}Cd
- 12 Boston University Medical School
Business Office
80 E. Concord Street
Boston, Massachusetts 02118
SS
- 13 Brigham Young University
Provo, Utah 84601
 ^{75}Se
- 14 Bristol-Myers Company
P. O. Box 4755
Syracuse, New York 13221
 ^{105}Pt
- 15 Brookhaven National Laboratory
Upton, Long Island, New York 11973
 ^{113}Cd , ^{71}Ga , ^{199}Hg , ^{176}Lu , ^{90}Mo , ^{97}Mo ,
 ^{100}Mo , ^{60}Ni , ^{160}Os , ^{162}Os , ^{193}Pt ,
 ^{105}Pt , ^{106}Pt , ^{101}Ru , ^{144}Sm , ^{118}Sn , SS
- 16 Brooklyn College
Bedford Avenue and Avenue H
Brooklyn, New York 11210
 ^{20}Mg , ^{117}Sn
- 17 Brown University
Providence, Rhode Island 02912
 ^{107}Er , ^{144}Nd , ^{208}Pb
- 18 California Institute of Technology
Accounts Payable 301-6
Pasadena, California 91125
 ^{150}Dy , ^{57}Fe , ^{199}Hg , SS
- 19 California, University of
400 Sproul Hall
Berkeley, California 94720
 ^6Li
- 20 California, University of
Davis, California 95616
 ^{63}Cu
- 21 California, University of
405 Hilgard Avenue
Los Angeles, California 90024
 ^{60}Ni , SS
- 22 California, University of
Accounting Office
P. O. Box 112
Riverside, California 92521
 ^{113}Cd , ^{57}Fe
- 23 California, University of
Santa Barbara, California 33106
 ^6Li , ^{208}Pb

- 24 California, University of
Lawrence Berkeley Laboratory
Berkeley, California 94701

40Ca, 113Cd, 115Cd, 51Cr, 201Hg,
203Hg, 24Mg, 143Nd, 60Ni, 101Ru, 144Sm,
147Sm, 152Sm, 154Sm, 122Sn, 124Sn,
TGS
- 25 California, University of
Lawrence Livermore Laboratory
Box 808
Livermore, California 94550

130Ce, 138Ce, 157Gd, 159Gd, 177Hf,
177Hf, 6Li, 7Li, 144Nd, 60Ni, 60Ni,
207Pb, 208Pb, 101Ru, 205Tl, 154Sm,
66Sr, SS, TGS
- 26 Cambridge Isotope Labs, Inc.
20 Commerce Way
Woburn, Massachusetts 01801

6Li, 7Li, 205Tl
- 27 Case Western Reserve University
2220 Circle Drive
Cleveland, Ohio 44106

60Ni, 205Tl
- 28 Chevron Research Company
555 Market Street
San Francisco, California 94120

57Fe
- 29 Childrens Medical Center
300 Longwood Avenue
Boston, Massachusetts 02115

133Os
- 30 Ciba Geigy
444 Sawmill River Road
Ardsley, New York 10502

SS
- 31 Colorado School of Mines
Post Office Box 112
Golden, Colorado 80402

143Nd
- 32 Colorado, University of
4200 E. Ninth Avenue
Denver, Colorado 80220

70Zn
- 33 Columbia University
Box 6, Low Library
New York, New York 10027

62Se, SS
- 34 Combustion Engineering, Inc.
Box 400
Windsor, Connecticut 06095

6Li, 7Li
- 35 Connecticut, University of
Physical Sciences Bldg.
Storrs, Connecticut 06268

6Li
- 36 CIBA-GEIGY Corporation
Accounts Payable Dept.
556 Morris Avenue
Summit, New Jersey 07901

24Mg
- 37 De Paul University
25 East Jackson Boulevard
Chicago, Illinois 60604

SS, TGS
- 38 Denison University
Granville, Ohio 43023

133Os, SS, TGS
- 39 Drew University
Papin Service Center - Purchasing
36 Madison Avenue
Madison, New Jersey 07940

115Sn
- 40 Du Pont de Nemours and Company, E. I.
Wilmington, Delaware 19898

57Fe
- 41 Duke University
Durham, North Carolina 27706

54Fe, 205Tl, 6Li, 194Pt, SS, TGS
- 42 E G & G Idaho, Inc.
Accounts Payable Section
P. O. Box 1625
Idaho Falls, Idaho 83415

122Te
- 43 E. I. Du Pont De Nemours & Company
NEN Products
Accounts Payable
549 Albany Street
Boston, Massachusetts 02118

113Cd, 151Eu, 153Gd, 203Tl
- 44 Eagle-Pitcher Industries, Inc.
P.O. Box 798
Qualpaw, Oklahoma 74363

7Li
- 45 Eastman Kodak Company
Kodak Park Division
Rochester, New York 14650

107Ag, 101Ru, 102Ru
- 46 Efratom California, Incorporated
18851 Bardeen Avenue
Irvine, California 92715

87Rb

- 47 Emory University
Atlanta, Georgia 30322
100W
- 48 Esso Research and Engineering Company
P. O. Box 642
Linden, New Jersey 07036
*Mo, *Ni, *V
- 49 Florida State University
Tallahassee, Florida 32306
*Li, *Ni, *Ni
- 50 Florida, University of
Gainesville, Florida 32601
*Si, SS
- 51 Furman University
Greenville, South Carolina 29613
*Ge
- 52 General Electric Company
Post Office Box 254
San Jose, California 95103
*Hg
- 53 George Washington University
Accounts Payable
Academic Center
801 22nd Street
Washington, D.C. 20056
*Re
- 54 Georgia, University of
Athens, Georgia 30601
*Nd, *Rb, *Sm, *Sr
- 55 GA Technologies Inc.
P. O. Box 85608
San Diego, California 92138
*Li
- 56 GTE Products Corporation
Lighting Products Group
100 Endicott Street
Danvers, Massachusetts 01923
*Hg, *Hg, *Hg, *Hg
- 57 Harshaw Chemical Company
Division of Kewanee Oil Company
6801 Cochran Road
Solon, Ohio 44139
*Li, *Li
- 58 Harvard University
Geological Museum
24 Oxford Street
Cambridge, Massachusetts 02138
*Ce
- 59 Harvard University
Chemical Laboratories
12 Oxford Street
Cambridge, Massachusetts 02138
*Mo
- 60 Hewlett Packard Company
1501 Page Mill Road
Palo Alto, California 94304
*Rb
- 61 Illinois Institute of Technology
3300 S. Federal Street
Chicago, Illinois 60616
SS
- 62 Illinois State University
Purchasing Office
Normal, IL 61761
*Ni
- 63 Indiana University
Bloomington, Indiana 47401
*Ca, *Ca, *Fe, *Sn, *Sr, *Sr,
*Sr
- 64 International Business Machines Corp.
Post Office Box 218
Yorktown Heights, New York 10598
*Gd, TGS
- 65 Iowa State University
Ames Laboratory
Purchasing Department
Room 139, Spedding Hall
Ames, Iowa 50011
*B, *Ba, *Fe
- 66 Iowa State University
Purchasing Department
Ames, Iowa 50011
*Fe, *Fe, *Zn, *Zn
- 67 Isotope Products Laboratories
404 South Luke Street
Burbank, California 91502
HC, *Pu, *Sm, *Te
- 68 Kaman Instrumentation Corp.
P. O. Box 7463
Colorado Springs, Colorado 80933
TGS
- 69 Kentucky, University of
Lexington, Kentucky 40506
*Er, *Hg, *Pt, *Pt, *S, SS
- 70 Lamont-Doherty Geological Observatory
Accounts Payable
Palisades, New York 10964
*Pb

- 71 Litton Industries
Guidance and Control Systems
5500 Canoga Avenue
Woodland Hills, California 91367
 ^{86}Rb , ^{87}Rb
- 72 Louisiana State University
Nuclear Science Center
Baton Rouge, Louisiana 70803
 ^6Li , ^7Li , ^{87}Rb , ^{88}Sr , SS
- 73 Mallinckrodt, Inc.
2703 Wagner Place
Maryland Heights, Missouri 63043
 ^{127}Te
- 74 Maryland, University of
College Park, Maryland 20742
 ^7Li
- 75 Massachusetts Institute of Technology
Box 69
Cambridge, Massachusetts 02139
 ^{50}Cr , ^{54}Cr , ^{56}Fe , ^{57}Fe , ^{58}Fe ,
 ^{177}Hf , ^{178}Hf , ^6Li , ^{90}Mo , ^{98}Mo , ^{61}Ni ,
 ^{60}Ni , ^{64}Ni , ^{76}Se , ^{78}Se , ^{82}Se , ^{150}Sm ,
 ^{152}Sm , ^{154}Sm , ^{111}Tl , ^{67}Zn , ^{68}Zn , ^{88}Zr
- 76 Medi-Physics, Incorporated
4050 Lakeside Drive
Richmond, California 94806
 ^{113}Cd , ^{65}Zn
- 77 Medical College of Wisconsin
8700 W. Wisconsin Avenue
Milwaukee, Wisconsin 53226
 ^{63}Cu , ^{65}Cu
- 78 Michigan State University
East Lansing, Michigan 48823
 ^{40}Ca , ^{111}Cd , ^6Li
- 79 Michigan, University of
Ann Arbor, Michigan 48104
 ^{160}Dy , ^{162}Dy , ^{188}Er , ^{190}Er , ^{170}Er ,
 ^{147}Sm , ^{173}Yb
- 80 MicroMatter Company
Route 1, Box 728
Eastsound, Washington 98245
 ^{111}Cd , ^{123}Sb , ^{144}Sm , ^{147}Sm , ^{154}Sm ,
 ^{122}Sn , ^{203}Tl
- 81 Minnesota Mining and Manufacturing Comp
Post Office Box 3121
St. Paul, Minnesota 55101
 ^{63}Cu
- 82 Mississippi, University of
University, Mississippi 38677
SS, TGS
- 83 Monsanto Research Corporation
Dayton Laboratory
1515 Nicholas Road
Dayton, Ohio 45407
 ^{108}B , ^{187}Os , ^{210}Pb , ^{210}Po
- 84 Monsanto Research Corporation
Mound Laboratory
P. O. Box 32
Miamisburg, Ohio 45342
 ^{65}Zn
- 85 Montefiore Hospital
E. 210th Street and Bainbridge Avenue
Bronx, New York 10467
 ^{42}Ca
- 86 Mount Sinai Medical Center
4300 Alton Road
Miami Beach, Florida 33139
 ^{65}Zn
- 87 Nassau Community College
Stewart Avenue
Garden City, New York 11530
 ^{57}Fe
- 88 National Bureau of Standards
Connecticut Avenue and Van Ness Street,
Washington, D. C. 20234
 ^{37}Cl , ^{199}Hg , ^{201}Hg , ^6Li , ^{24}Mg , ^{60}Ni ,
TOS
- 89 National Diagnostics
198 Route 206, South
Sommerville, N.J. 08876
 ^6Li
- 90 National Institutes of Health
Accounts Payable DFM/Attn: Louise Clar
9000 Rockville Pike
Building 31, Room 81833
Bethesda, Maryland 20205
 ^{42}Ca , ^{43}Ca , ^{44}Ca , ^{46}Ca , ^{63}Cu , ^{57}Fe ,
 ^6Li , ^{24}Mg
- 91 National Nuclear Corporation
1904 Colony Street
Mountain View, California 94043
 ^6Li
- 92 Naval Surface Weapons Center
Disbursing Officer
Dahlgren, Virginia 22448
 ^6Li
- 93 New Hampshire, University of
Durham, New Hampshire 03824
 ^{88}Sr , ^{89}Sr , TGS

- 94 New York, State University of
Research Foundation
Stony Brook, New York 11790
¹⁹⁹Hg, ¹⁴⁷Nd, ²¹⁰Pb, ⁹⁰Zr
- 95 New York, State University College at B
1300 Elmwood Avenue
Buffalo, New York 14222
¹²⁵Te
- 96 North Carolina State University
P. O. Box 5935
Raleigh, North Carolina 27607
⁶³Ni
- 97 North Carolina, University of
Chapel Hill, North Carolina 27514
SS, ⁶⁵Zn
- 98 Northeastern University
360 Huntington Avenue
Boston, Massachusetts 02115
¹⁹⁵Pt, TOS
- 99 Northern Illinois University
Box 185
DeKalb, Illinois 60115
¹⁵¹Eu, ⁸⁷Rb
- 100 Northrop
One Research Park
Palos Verdes, California 90274
²⁰⁸Pb
- 101 Northwestern University
619 Clark Street
Evanston, Illinois 60201
⁴²Ca, ⁶Li, ¹⁰⁶Pd, ¹⁰⁶Pd, ¹⁰⁶Pd, ¹¹⁰Pd,
SS, TGS, ⁴⁸Ti
- 102 Nuclear Measurements Corporation
2460 North Arlington Avenue
Indianapolis, Indiana 46218
⁵⁹Fe
- 103 Nuclear Medicine Incorporated
900 Atlantic Drive
Atlanta, GA 30332
¹⁰²Pd
- 104 Ohio State University
190 North Oval Drive
Columbus, Ohio 43210
²⁴Mg
- 105 Ohio State University
Research Foundation
1314 Kinnear Road
Columbus, Ohio 43212
⁶Li
- 106 Ohio University
Athens, Ohio 45701
⁷Li, ⁸⁰Se, SS
- 107 Oregon State University
Corvallis, Oregon 97330
¹⁴⁷Nd, ¹⁵²Sm
- 108 Orgmet, Inc.
Route 111
East Hampstead, New Hampshire 03826
⁶Li
- 109 Pennsylvania State University
University Park, Pennsylvania 16802
¹⁰⁰Yb
- 110 Pennsylvania, University of
3025 Walnut Street
Philadelphia, Pennsylvania 19104
⁴⁰Ca, ⁶³Cu, ⁶⁵Cu, ⁵⁴Fe, ⁷³Ge, ⁷³Ge,
²⁴Mg, ²⁴Mg, ⁶⁰Ni, ⁶²Ni, ²⁰⁸Pb, ⁷⁴Se,
⁷⁶Se, ²⁸Si, ²⁸Si, ¹¹⁴Sn, ¹¹⁴Sn, ⁶⁶Zn,
⁶⁷Zn, ⁶⁸Zn, ⁷⁰Zn
- 111 Plasma Physics Laboratory
Accounts Payable Department
Princeton University
P. O. Box 451
Princeton, New Jersey 08544
⁷Li, ⁸⁶Rb, ⁸⁷Rb
- 112 Princeton University
James Forrestal Campus
Princeton, New Jersey 08540
³⁵Cl, ⁵⁰Cr, ⁶³Cu, ⁵⁴Fe, ⁵⁷Fe, ³⁹K,
⁸⁶Rb, ⁸⁷Rb, ⁶⁷Zn
- 113 Purdue University
Pharmacy Annex
Lafayette, Indiana 47907
¹⁴⁰Dy, ¹⁵¹Er, ¹⁰⁶Er, ⁵⁴Fe, ¹⁷⁷Hf,
⁶³Ni, SS
- 114 Quantum Design
11568 Sorrento Valley Road
Suite 15
San Diego, California 92121
⁴¹K
- 115 RadPharm, Incorporated
828 Mahler Road
Burlingame, California 94010
¹¹³Cd
- 116 Reactor Experiments, Inc.
963 Terminal Way
San Carlos, California 94070
SS

- 117 Research Foundation of the City
University of New York
RF #06074
1515 Broadway
New York, New York 10021

1⁰⁷Ag
- 118 Rhode Island, University of
Narragansett Marine Laboratory
Kingston, Rhode Island 02881

1⁰⁰Gd, TGS
- 119 Rochester, University of
575 Elmwood Avenue
Rochester, New York 14627

1⁰Ca, 1⁰Nd, 1⁰⁷Os, 1¹⁰Sn, 1¹⁰Sn,
1²⁴Sn, 1⁰W
- 120 Rockwell International
Energy Systems Group
8900 Desoto Avenue
Canoga Park, California 91305

SS
- 121 Rutgers, The State University
New Brunswick, New Jersey 08903

1⁰²Gd, 1⁰Ni, 1⁰⁰Os, 1⁰²Pt, 1⁰⁴Pt,
1⁰⁴Pt, 1⁰²Pt, 1⁰Sr
- 122 San Diego State University
San Diego State University Foundation
5178 College Avenue
San Diego, California 92182
ATTN: accounts payable

1⁰Rb
- 123 Sandia Corporation
Post Office Box 5800
Albuquerque, New Mexico 87115

1⁰Cu, TGS
- 124 South Carolina, University of
Columbia, South Carolina 29208

1⁰Ca, 1⁰Se, SS
- 125 Stohler Isotope Chemicals Inc.
49 Jones Road
Waltham, Massachusetts 02154

1⁰Li, 1⁰Li, 1⁰⁰Pb, 1⁰⁷Pb, 1⁰⁰Pb
- 126 Tennessee Eastman Company
Kingsport, Tennessee 37667

1⁰Fe
- 127 Tennessee Valley Authority
Chattanooga Accounting Office
285 Haney Bldg.
Chattanooga, Tennessee 37401

1⁰Li
- 128 Texas at Dallas, University of
P. O. Box 30365
Dallas, Texas 75230

1⁰Ca
- 129 Texas A and M Research Foundation
P. O. Box H
College Station, Texas 77843

1⁰Fe
- 130 Texas A and M University
Post Office Box 44
College Station, Texas 77843

1⁰⁰Pb
- 131 Texas Christian University
P. O. Box 29010A, TCU Station
Fort Worth, Texas 76129

1⁰⁰Nd, 1⁰Rb, 1⁰Sr
- 132 Texas Instruments, Inc.
Science Services Division
P.O. Box 5012, Mail Stop 6
Dallas, Texas 75222

1⁰⁰Pt
- 133 U. S. Geological Survey
1020 O'Brien Drive
Menlo Park, Ca 94025

1⁰⁰Pb
- 134 U.S. Services Incorporated
19 Ox Bos Lane
Summit, New Jersey 97901

1⁰Cu, 1⁰Cu, 1⁰Mg, 1⁰⁷Pb, 1⁰Zn
- 135 Union Carbide Corporation
Sterling Forest Research Center
Post Office Box 324
Tuxedo, New York 10987

1⁰Cr, SS
- 136 Union Carbide Corporation, Nuclear Divi
Oak Ridge National Laboratory
Post Office Box X
Oak Ridge, Tennessee 37830

1⁰B, 1⁰Ba, 1⁰¹Ca, 1⁰Ca, 1⁰⁰Cd, 1⁰Cl,
1⁰Cl, 1⁰Cr, 1⁰²Cr, 1⁰²Cr, 1⁰Cr, 1⁰Cr, 1⁰Cu,
1⁰⁰Dy, 1⁰²Dy, 1⁰⁴Dy, 1⁰⁰Er, 1⁰²Eu,
1⁰Fe, 1⁰Fe, 1⁰⁷Fe, 1⁰⁰Gd, 1⁰⁰Gd, 1⁰Ge,
1⁰C, 1⁰⁷Hf, 1⁰⁷Hf, 1⁰⁷Hf, 1⁰⁰Hf, 1⁰Li,
1⁰Mg, 1⁰Mg, 1⁰²Nd, 1⁰⁴Nd, 1⁰⁰Nd, 1⁰Ni,
1⁰Ni, 1⁰⁷Os, 1⁰⁰Os, 1⁰⁴Pb, 1⁰⁷Pb,
1⁰⁰Pb, 1⁰⁴Pt, 1⁰⁰Ru, 1⁰¹Ru, 1⁰²Ru,
1⁰⁴Ru, 1⁰Se, 1⁰Si, 1⁰⁴Sm, 1⁰⁷Sn,
1⁰⁰Sn, 1⁰⁴Sn, 1⁰Sr, SS, 1⁰⁴Te, 1⁰⁰Te,
TGS, 1⁰⁷Tl, 1⁰⁰Yb, 1⁰⁷Yb, 1⁰Zr
- 137 Union Carbide Corporation, Nuclear Divi
Y-12 Plant
Post Office Box Y
Oak Ridge, Tennessee 37830

1⁰⁰Er, 1⁰¹Hg

- 138 United States Department of Agriculture
Research Service
P. O. Box 53326
New Orleans, Louisiana 70150
 ^{63}Cu , ^{54}Fe , ^{57}Fe , ^{82}Se , ^{67}Zn , ^{70}Zn
- 139 United States Geological Survey
Financial Management
National Center, Room 1447-A
12201 Sunrise Valley Drive
Reston, Virginia 22092
 ^{137}Ba , ^{137}Ba , ^{79}Br , ^{40}Ca , ^{37}Cl , ^{50}Cr ,
 ^{63}Cu , ^{153}Dy , ^{170}Er , ^{151}Eu , ^{54}Fe , ^{71}Ga ,
 ^{157}Gd , ^{73}Ge , ^{201}Hg , ^{113}In , ^{203}Hg ,
 ^{143}Nd , ^{61}Ni , ^{187}Os , ^{208}Pb , ^{232}S , ^{76}Se ,
 ^{76}Se , ^{84}Sr , ^{86}Sr , ^{122}Te , ^{203}Tl , ^{171}Yb ,
 ^{67}Zn , ^{91}Zr
- 140 United States National Aeronautics and
Manned Spacecraft Center
Houston, Texas 77058
 ^{44}Ca , ^{48}Ca
- 141 United States Navy
Naval Research Laboratory
Washington, D. C. 20390
 ^{57}Fe , ^{6}Li
- 142 University of California
Los Alamos National Laboratory
Accounting Dept.
P. O. Box 1663
Los Alamos, New Mexico 87545
 ^{40}Ca , ^{187}Er , ^{54}Fe , ^{56}Fe , ^{199}Hg , ^{202}Hg ,
 ^6Li , ^7Li , ^{24}Mg , ^{60}Ni , ^{62}Ni , ^{184}Os ,
 ^{187}Os , ^{208}Pb , ^{104}Ru , ^{34}S , ^{28}Si , ^{30}Si ,
SS, ^{122}Te , TGS
- 143 University of California San Diego
Accounting Office (Q-027)
La Jolla, California 92093
 ^{44}Ca , ^{48}Ca , HC, ^{111}Ir , ^{187}Os , ^{187}Os ,
 ^{190}Pt , ^{194}Pt , ^{198}Pt , SS
- 144 University of Chicago
Account Payable
1525 E. Hyde Park Boulevard
Chicago, Illinois 60615
 ^{122}Te
- 145 University of Cincinnati
Purchasing Department
Cincinnati, Ohio 45221
 ^{57}Fe , ^{122}Te
- 146 University of Illinois at Urbana-Champaign
242 Administration Bldg.
Office of Business Affairs
Accounting Division
506 South Wright Street
Urbana, Illinois 61801
 ^{187}Er , ^{57}Fe , ^{99}Mo , ^{28}Si , SS, TGS,
 ^{203}Tl
- 147 University of Mississippi Medical Center
Accounting Department
2500 North State Street
Jackson, Mississippi 39216
 ^{44}Ca , ^{48}Ca , SS, TGS
- 148 University of Missouri
Purchasing Department
General Services Building
Columbia, Missouri 65211
 ^{110}Cd , ^{114}Cd , ^{150}Dy , ^{180}Hf , ^{199}Hg ,
 ^{176}Lu , ^{74}Se , ^{152}Sm , ^{84}Sr , ^{122}Te , TGS,
 ^{171}Yb
- 149 University of Texas
P.O. Box 688
Richardson, Texas 75080
 ^{67}Zn
- 150 University of Texas
Science Center at Houston
P. O. Box 20036
Houston, Texas 77025
 ^{44}Ca , ^{54}Fe , ^{67}Zn
- 151 Utah State Agriculture College
Logan, Utah 98186
 ^{54}Fe
- 152 Utah, University of
Purchasing Department
Salt Lake City, Utah 84112
 ^{42}Ca
- 153 Veterans Administration Hospital
Brooklyn, New York 11209
 ^{30}Si
- 154 Veterans Administration Hospital
500 Foothill Drive
Salt Lake City, Utah 84113
 ^{40}Ca , ^{42}Ca , ^{44}Ca , ^{24}Mg
- 155 Virginia Polytechnic Institute
Blacksburg, Virginia 24061
 ^{204}Hg
- 156 Virginia, University of
Charlottesville, Virginia 22903
 ^{40}Ca , ^{199}Hg , ^{208}Pb , SS, TGS
- 157 Warner-Lambert Research Institute
170 Tabor Road
Morris Plains, New Jersey 07950
 ^{193}Pt
- 158 Washington University
Lindell and Skinker
St. Louis, Missouri 63130
 ^{140}Nd

159 Washington University of
400 Administration Building
Seattle, Washington 98105

¹⁴²Dy, ¹⁹⁹Hg, ²⁸Si, ¹⁴⁰Sm, ¹⁴⁴Sm,
¹²⁰Te, TGS

160 West Valley Nuclear Services Co., Inc.
Attention: Accounts Payable
Post Office Box 191
West Valley, New York 14171-0191

⁶Li

161 Westinghouse Electric Corporation
Bettis Atomic Power Laboratory
Post Office Box 79
West Mifflin, Pennsylvania 15122

SS, TGS

162 Westinghouse Electric Corporation
Research and Development Center
Beulah Road, Churchill Borough
Pittsburgh, Pennsylvania 15235

SS, ⁹⁰Zr, ⁹¹Zr

163 Westinghouse Electric Corporation
Advanced Reactors Division
P. O. Box 158
Madison, Pennsylvania 15663

⁶Li

164 Westinghouse Hanford Company
P. O. Box 1970
Richland, Washington 99352

¹⁰B, ⁷Li, ⁹⁹Mo, TGS

165 Wisconsin University of
750 University Avenue
Madison, Wisconsin 53706

⁶Li, ²⁰⁸Pb, SS, ¹⁷⁴Yb

166 Yale University
20 Ashmun Street
New Haven, Connecticut 06520

⁴⁰Ca, ⁶³Cu, ²⁰¹Hg, SS, ⁷⁰Zn

B. FOREIGN

AUSTRALIA

167 Australian National University
P. O. Box 4
Canberra, A. C. T., Australia

²⁰¹Hg, ¹⁹²Pt, ¹⁹⁴Pt, ¹⁹⁶Pt, ¹⁹⁸Pt,
⁷⁶Se, ⁸⁰Se, ⁸²Se, ⁸⁴Sr

168 Embassy of Australia
1601 Massachusetts Avenue, N.W.
Washington, D.C. 20036

TGS

169 La Trobe University
Bundoora, Victoria
Australia 3083

⁹⁹Mo, SS

170 University of Melbourne
School of Physics
Parkville, Victoria, 3052

¹⁰⁰Gd, ⁶³Ni

171 Western Australian Institute of Technol
Hayman Road
Bentley South 6102
Western Australia

⁸¹Br, ⁷³Ge, ⁷⁶Ge, ¹⁹¹Ir, ¹²⁰La, ¹⁷⁶Lu

BELGIUM

172 Central Bureau for Nuclear Measurements
of the European Communities
B-2440 GEEL, Steenweg naar Rette
Belgium

⁵⁴Fe, ⁶Li, ⁷Li, SS, TGS

173 IRE, Institut National des Radioelement
Avenue Eugene Plasky, 144
1040 Brussels, Belgium

⁴⁰Ca

174 Katholieke Universiteit Leuven
Instituut voor Kern-En Stralingsfysika
Celestijnenlaan 200 D
3030 Leuven, Belgium

¹²⁴Te, ¹²⁵Te, ¹²⁶Te

175 Rijksuniversiteit Gent
Laboratorium voor Kristallografie
en Studie Van De Vastestof
Krijgslaan 271
B-9000 Gent, Belgium

³³S

176 SCK-CEN Laboratories
Boeretang, 200
B-2400 MOL Belgium

⁵⁴Fe, ¹⁷⁰Hf, ²⁰⁸Pb, ¹¹⁵Sn

BRAZIL

177 Conselho Nacional De Desenvolvimento
Cientifico E Technologico - CNPQ
Av. W/3 Norte Q.507 Lot: 2
Brasilia - DF
Brazil

¹¹⁵Sn

CANADA

178 Animal Research Centre
Agriculture Canada Research Branch
Finance & Material Management Unit
Central Experimental Farm, Bldg. 60
Ottawa, Ontario K1A 0C6

⁶⁴Cu, ⁹⁹Mo, SS

- 179 Atomic Energy of Canada Limited
Chalk River, Ontario, Canada
 ^{10}B , ^{40}Ca , ^{55}Mn , ^{90}Zr , ^{92}Zr , ^{94}Zr
- 180 Atomic Energy of Canada Ltd.
Radiochemical Co.
413 March Road
P.O. Box 13500
Kanata, Ontario K2K 1X8
 ^{112}Cd , ^{50}Cr , ^{63}Ni , ^{55}Mn , ^{203}Tl
- 181 Carleton University
Accounts Payable Department
Business Office
301 Administration Bldg.
Ottawa, Ontario
K1S 5B6
Canada
 ^{140}Nd , ^{84}Sr
- 182 Geological Survey of Canada
601 Booth Street, Room 462
Ottawa, Ontario K1A 9E8
Canada
 ^{140}Nd , ^{152}Sm
- 183 McMaster University
Hamilton, Ontario, Canada
 ^{50}Cr , ^{52}Cr , ^{161}Dy , ^{160}Er , ^{170}Er ,
 ^{151}Eu , ^{152}Eu , ^{54}Fe , ^{56}Fe , ^{154}Gd ,
 ^{155}Gd , ^{157}Gd , ^{158}Gd , ^{160}Gd , ^{177}Hf ,
 ^{166}Hf , ^{175}Lu , ^{60}Ni , ^{62}Ni , ^{64}Ni , ^{67}Ni , ^{68}Ni ,
 ^{149}Sm , ^{150}Sm , ^{152}Sm , ^{153}Sm , ^{154}Sm , ^{182}W , ^{184}W ,
 ^{186}W , ^{170}Yb , ^{171}Yb , ^{172}Yb , ^{174}Yb ,
 ^{176}Yb
- 184 McMaster University Medical Center
Forsythe Avenue
Hamilton, Ontario, Canada
 ^{42}Ca , ^{44}Ca , ^{46}Ca , ^{170}Er , ^{152}Sm
- 185 March Frost Labs
CP/P. O. Box 1005
Pointe Claire - Dorval
Quebec, Canada H9R 4P8
 ^6Li
- 186 National Research Council
Montreal Road Laboratories
Ottawa, Ontario, Canada
 ^{109}Ag , ^{42}Ca , ^{53}Cr , ^{63}Cu , ^{57}Fe , ^{201}Hg ,
 ^7Li , ^{61}Ni , ^{207}Pb , ^{87}Rb , ^{86}Sr , ^{203}Tl ,
 ^{67}Zn
- 187 S.Y.E.P. #1002 xx4
c/o P. O. Box 1000
Agassiz, British Columbia V0M 1A0
Canada
 ^{54}Fe , ^{56}Fe , ^{69}Ga
- 188 Saskatchewan, University of
Saskatoon, Saskatchewan, Canada
 ^{110}Pd
- 189 Simon Fraser University
Burnaby 2, B. C., Canada
 ^{100}Te
- 190 Toronto, University of
Toronto, Ontario, Canada
 ^{160}Hf , ^{180}Os , ^{87}Rb , ^{147}Sm , ^{88}Sr
- 191 TRIUMF
4004 Westbrook Mall
Vancouver, British Columbia
Canada V6T 2A3
 ^{40}Ca , ^6Li , ^7Li , ^{24}Mg , TGS
- 192 University of Alberta
Edmonton, Alberta, Canada T6G2H1
 ^{88}Sr
- 193 Victoria, University of
P. O. Box 1700
Victoria, B. C., Canada
 ^{61}Ni
- 194 Western Ontario, University of
Accounts Payable
Stevenson Lawson Bldg. Rm. 280
London, Ontario, Canada N6A 5B8
 ^{107}Ag , ^{130}Te
- 195 X-Ray Assay Laboratories
1885 Leslie Street
Don Mills, Ontario M3B 3J4
Canada
 ^{109}Ag , ^{135}Ba , ^{161}Dy , ^{160}Er , ^{151}Eu ,
 ^{73}Ge , ^{24}Mg , ^{95}Mo , ^{140}Nd , ^{121}Sb , ^{123}Sb ,
 ^{77}Se , ^{149}Sm , ^{117}Sn , ^{86}Sr , ^{125}Te ,
 ^{203}Tl , ^{171}Yb

CHILE

- 196 Comision Chilena de Energia Nuclear
Import Departament
Casilla 188 - D
Santiago, Chile
 ^6Li

CHINA

- 197 Institute of Geology
Academia Sinica
Beijing
Peoples Republic of China
 ^{86}Sr , ^{88}Sr

DENMARK

- 198 Aarhus, University of
Aarhus C, Denmark
 ^{40}Ca
- 199 Kobenhavns Universitet
Niels Bohr Institutet
Tandem Accelerator Laboratory
Riso, 4000 Roskilde
Denmark
 ^{167}Er , ^{160}Hg , ^{140}Nd , ^{110}Pd , ^{128}Te ,
 ^{130}Te

200 Kobenhavns Universitet
Niels Bohr Institutet
Kemi-Afdelingen
Blegdamsvej 17, 2100 Kobenhavn O
Denmark
dEnuArK

¹⁵¹Eu, ¹⁵²Gd

201 Risø National Laboratory
DK-4000 Roskilde
Denmark

⁴⁴Ca, ⁸⁴Sr

EGYPT

202 Cairo University
Physics Department
Faculty of Science
Giza, Egypt

¹⁵⁰Gd, ¹⁷⁰Yb

ENGLAND

203 Amersham International Limited
White Lion Road Amersham
Buckinghamshire England HP7 9LL

⁴⁴Ca, ¹¹²Sn, ⁹⁰Sr, SS, ¹⁰⁰Yb, ⁶⁶Zn

204 Birmingham, University of
Edgbaston, Birmingham 15, England

TGS, ⁹¹Zr

205 Bradford, University of
Bradford 7, England

SS

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

⁴⁰Ca, ⁴⁴Ca, ⁴⁸Ca, ¹⁰²Dy, ¹⁰³Dy, ⁷⁴Ge,
⁹²Mo, ⁹⁴Mo, ⁹⁶Mo, ⁹⁸Mo, ⁹⁷Mo, ⁹⁹Mo,
¹⁰⁰Mo, ¹⁴⁴Nd, ⁹²Ni, ¹⁰⁴Pd, ¹⁰⁵Pd,
¹⁰⁶Pd, ¹⁰⁸Pd, ¹¹⁰Pd, ⁹⁹Ru, ⁹⁹Ru, ⁹⁹Ru,
¹⁰⁰Ru, ¹⁰¹Ru, ¹⁰²Ru, ¹⁰⁴Ru, ⁹³S, ⁸²Se,
²⁸Si, ¹²¹Sn, SS, ¹²⁰Te, ¹²⁴Te, TGS,
⁹²Zr, ⁹⁴Zr, ⁹⁶Zr

207 Cambridge University
Cambridge, England

²⁰⁷Pb, ²⁰⁸Pb, ⁸⁴Sr

208 Manchester University
Manchester 13, England

⁵⁰Cr, ¹⁹⁹Hg, ¹⁹²Os, ¹⁹⁴Pt, ¹⁹⁵Pt,
¹⁹⁶Pt, ⁹⁹Ru, ¹⁴⁷Sm, ¹²²Sn, TGS

209 Oxford, University of
Nuclear Physics Laboratory
21 Banbury Road
Oxford, England

⁸⁴Sr, TGS, ¹⁰⁰Yb

210 Sussex, University of
Brighton, Sussex, England

⁹⁹Mo, ⁹⁷Mo, ⁹⁶Mo, ⁹⁵S

211 United Kingdom Freight Forwarding Office
25 Broadway
New York, New York 10004

¹⁵²Gd, ¹⁹⁸Pt

212 University of London, King's College
The Strand
London W.C.2R, 2LS
England

³⁰Si, SS, TGS

213 University College of London
Faculty of Clinical Sciences
Dept. of Medicine, Rayne Institute
5 University Street
London, WC1E 6JJ
England

⁴⁴Ca, ⁶⁷Zn

FRANCE

214 Bureau de Recherches Geologiques et
Minieres (BRGM)
BP 6009
45060 Orleans Cedex, France

¹⁴⁰Nd, ¹⁴⁴Sm

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

⁸⁸Ni, ¹²¹Sb, ¹³⁰Te

216 Fondation Scientifique de la Geologie
et de ses Applications
Rue du Doyen Marcel Roubault
B.P. 40, F-54501 Vandoeuvre
Cedex, France

²⁴Mg, ¹⁴⁰Nd

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

³⁵Cl, ³⁷Cl, ¹⁹²Os, SS

218 Institut Fur Physikalische Chemie
Der
RWTH Aachen,
Templergraben 59
D-5100 Aachen,
West Germany

⁶Li

GERMANY

219 American Hoechst Corporation
P. O. Box 2500
Somerville, New Jersey 08876

⁵⁰Cr, ¹⁹⁹Hg, SS

- 220 Bonn, Universität
Nussallee 12-14
55 Bonn, Germany
 ^{79}Br , ^{81}Br
- 221 Buchler and Company
Frankfurter Str. 294
Braunschweig, Germany
 ^{56}Fe , ^6Li , ^{35}S , ^{76}Se
- 222 Darmstadt, Technische Hochschule
61 Darmstadt, Germany
 ^{63}Cu , TGS
- 223 Erlangen-Nürnberg, University
Gluckstr.
852 Erlangen, West Germany
 ^{142}Nd , SS
- 224 EURATOM Transuranium Institute
P. O. Box 452
75 Karlsruhe, West Germany
HC, ^{242}Pu
- 225 Fachbereich Physik
der TU-München
Strahlenschutzabt. Z 62
James-Franck-Weg
D-8046 Garching B. München, West German
 ^{80}Ga , ^{71}Ga , ^{199}Hg , ^{101}Ir , ^{103}Ir ,
 ^{187}Os , ^{189}Os , ^{192}Os , ^{203}Pb , ^{194}Pt ,
 ^{144}Sm , ^{86}Sr , ^{120}Te
- 226 Federal Institute for Geosciences & Nat
Stilleweg 2
D-3000 Hannover 51
West Germany
 ^{140}Nd , ^{142}Nd , ^{150}Sm , ^{88}Sr
- 227 Freie Universität Berlin
SFB-161
Arnimallee 14
1 Berlin 33,
W. Germany
 ^{42}Ca , ^{111}Cd , ^{114}Cd , ^{142}Ce , ^{112}In ,
 ^{24}Mg , ^{123}Sb , ^{114}Sn , ^{119}Sn , ^{120}Sn , SS,
 ^{122}Te , ^{124}Te , ^{126}Te , ^{128}Te , ^{130}Te ,
TGS
- 228 Gesellschaft für Kernenergieverwertung
Schiffbau und Schiffahrt mbH
2054 Geesthacht-Tesperhude
Reaktorstrasse 1, West Germany
 ^{152}Dy
- 229 Gesellschaft für Kernforschung mbH
Institute fuer Angewandte Reaktor Phys
Weberstrasse 5
75 Karlsruhe
West Germany
 ^{63}Cu , ^{153}Eu , ^{204}Hg , ^6Li , ^{24}Mg , ^{114}Sn ,
SS, ^{120}Te , TGS, ^{174}Yb
- 230 Gesellschaft für Schwerionenforschung,
Finanz Abteilung,
Postfach 541,
D-6100 Darmstadt,
West Germany
 ^{35}Cl , ^{50}Cr , ^{39}K , ^{93}Mo , ^{94}Mo , ^{95}Mo ,
 ^{96}Mo , ^{97}Mo , ^{98}Mo , ^{123}Sb , ^{28}Si , SS,
TGS
- 231 Gesellschaft für Strahlen-
U. Umweltforschung München
Post Oberschleibheim
Ingolstädter Landstr. 1
D-8042 Neuherberg, FRG, West Germany
 ^{41}Ca , ^{48}Ca
- 232 Giessen, Universität
6300 Giessen, Germany
TGS, ^{90}Zr
- 233 Goettingen, Universität
34 Goettingen, Germany
 ^{88}Sr
- 234 Hahn-Meitner-Institut
für Kernforschung Berlin, Sektion Kernph
Berlin, Germany
 ^{44}Ca , ^{35}Cl , ^{54}Cr , ^{70}Ge , ^{24}Mg , ^{97}Mo ,
 ^{100}Mo , ^{18}O , ^{110}Pd , ^{192}Pt , ^{194}Pt ,
 ^{196}Pt , ^{198}Pt , ^{44}Ru , ^{144}Sm , ^{148}Sm , SS
- 235 Kernforschungsanlage Jülich GmbH
Postfach 1913
D-517 Jülich, FRG
West Germany
 ^{69}Ga , ^{71}Ga , ^6Li , ^7Li , ^{63}Ni , ^{64}Ni ,
 ^{85}Rb , ^{76}Se , SS
- 236 Marburg/Lahn, Universität
Marburg/Lahn, Germany
 ^{32}S
- 237 Max Planck Institut für Kernphysik
Saupfercheckweg
Heidelberg, Germany
 ^{40}Ca , ^{64}Ni , ^{88}Sr , TGS, ^{90}Zr
- 238 Max Planck Institute für Chemie
Saarstrasse 23, Mainz
West Germany
 ^{150}Nd , ^{150}Os
- 239 Optisches Institut, Sekr. P11
Technische Universität Berlin
D-1000 Berlin 12, Straße des 17. Juni 1
West Germany
 ^{101}Ir , ^{103}Ir , ^{194}Pt
- 240 Richard H. Stern
Nuclear Division
Kaiserstrasse 13
Frankfurt/Main, West Germany
 ^{30}Si , SS

241 Sektion Physik
Der Universität München
Technologisches Labor
8046 Garching - Am Coulombwall 1, West G
 ^{135}S , ^{144}Sm

242 Universität Wuppertal
FB 9 - Anorg. Chemie
Gaußstr. 20
D-5800 Wuppertal
West Germany
 ^{76}Br , ^{74}Ge , ^{208}Pb , ^{130}Sn

GREECE

243 The Laboratory Superintendent
School of Chemical Sciences
University of East Anglia
Norwich, Norfolk, England NR4 7TJ
 ^{205}Tl

IRELAND

244 University College
Accounts Office
Belfield, Dublin 4
Ireland
 ^{140}Nd

ISRAEL

245 Embassy of Israel
3514 International Drive, N.W.
Washington, D. C. 20008
 ^{130}Os

246 Landseas Corporation
1212 Avenue of the Americas
New York, New York 10036
 ^{106}Pd , ^{194}Pt , ^{198}Pt , ^{245}S , ^{112}Sn ,
 ^{114}Sn , ^{116}Sn , ^{118}Sn , ^{120}Sn

247 Negev, University of
P. O. Box 2053
Beer-Sheva, Israel
 ^{203}Tl , ^{205}Tl

ITALY

248 Daiichi Radioisotope Laboratories, Ltd.
10-5, Nihonbashi 3-Chome, Chuo-Ku
Tokyo 103 Japan
 ^{203}Tl , ^{65}Zn

249 Electronics and Materials Corporation,
Room 1003, Tenmabashi Cope Bldg.
No. 32, Shima-Machi 2-Chome
Higashi-Ku, Osaka 540
Japan
 ^6Li

250 Euratom C.C.R.
Ispra (Varese), Italy
 ^6Li

251 Istituto Nazionale di Fisica Nucleare
Via A. Tarl, 3
80138 Napoli, Italy
 ^{30}Si , SS

JAPAN

252 Japan Atomic Energy Research Institute
Tokai Research Establishment
Tokai-Mura, Naka-Gun, Ibaraki-Ken
Japan
 ^{107}Ag , ^{109}Ag , ^{121}Sb , SS

253 Japan Radioisotope Association
Hon-Komagome 2 Chome 28
Bunkyo-Ku
Tokyo, Japan

^{130}Ba , ^{132}Ba , ^{42}Ca , ^{50}Cr , ^{63}Cu , ^{151}Eu ,
 ^{56}Fe , ^{57}Fe , ^{67}Ga , ^{71}Ga , ^{152}Gd , ^{154}Gd ,
 ^{72}Ge , ^{73}Ge , ^{76}Ge , ^6Li , ^7Li , ^{24}Mg ,
 ^{24}Mg , ^{92}Mo , ^{94}Mo , ^{97}Mo , ^{100}Mo , ^{142}Nd ,
 ^{144}Nd , ^{146}Nd , ^{150}Nd , ^{190}Os , ^{192}Os ,
 ^{192}Os , ^{208}Pb , ^{209}Pb , ^{106}Pd , ^{85}Rb ,
 ^{87}Rb , ^{32}S , ^{34}S , ^{29}Si , ^{152}Sm , ^{154}Sm ,
 ^{114}Sn , ^{116}Sn , ^{118}Sn , ^{120}Sn , ^{88}Sr , SS,
 ^{122}Te , ^{124}Te , TGS, ^{64}Zn , ^{67}Zn , ^{90}Zr

254 Kansai Electronics Co., Ltd.
8 Toganochi
Kitaku, Osaka, Japan

^{42}Ca , ^{44}Ca , ^{46}Ca , ^{63}Cu , ^{65}Cu , ^{54}Fe ,
 ^{56}Fe , ^{57}Fe , ^{152}Gd , ^{154}Gd , ^6Li , ^{24}Mg ,
 ^{92}Mo , ^{94}Mo , ^{97}Mo , ^{100}Mo , ^{142}Nd ,
 ^{144}Nd , ^{146}Nd , ^{150}Nd , ^{190}Os , ^{192}Os ,
 ^{208}Pb , ^{209}Pb , ^{106}Pd , ^{85}Rb ,
 ^{87}Rb , ^{32}S , ^{34}S , ^{29}Si , ^{152}Sm , ^{154}Sm ,
 ^{114}Sn , ^{116}Sn , ^{118}Sn , ^{120}Sn ,
 ^{122}Te , TGS

255 Sumitomo Corporation of America
875 N. Michigan Avenue
Chicago, Illinois 60611
 ^{124}Te

256 Toko Kasel Co., Ltd
Shin-machi 2-34-2, Setagay-ku
Tokyo 154 Japan
 ^{72}Ge

KOREA

257 Yonsei University
Seoul, Korea
 ^{57}Fe

NETHERLANDS

258 Byk Mailinckrodt CII B. V.
Attention: Mr. L. B. Dapper
Westelduinweg 3
1754 Z.G. Petten, The Netherlands
 ^{65}Zn

259 Highways International
Amsterdamse Straatweg 20
Baarn 2670
The Netherlands
 ^{203}Tl

- 260 Reactor Centrum Nederland
Pelten N. H., The Netherlands
 ^{78}Br , ^{142}Ce , ^{63}Cu , ^{161}Dy , ^{151}Eu ,
 ^{157}Gd , ^{202}Hg , ^{76}Se , ^{84}Sr
- 261 Rijksinkoopbureau
55 A Laan van Meerdervoort
The Hague, Netherlands
 ^{140}Nd , ^{150}Nd , ^{63}Ni , ^{150}Sm
- 262 State University of Groningen
Westerasingel 34
Groningen
The Netherlands
 ^{40}Ca , ^{195}Pt
- 263 Vrije Universiteit
Amsterdam, The Netherlands
 ^6Li , ^7Li
- NEW ZEALAND
- 264 University of Auckland
Private Bag
Auckland, New Zealand
 ^{40}Ca , ^{202}Hg , ^{24}Mg , ^{24}Mg
- NORWAY
- 265 Institutt for Energiteknikk
P. O. Box 40
2007 Kjeller, Norway
 ^{150}Gd
- SCOTLAND
- 266 University of Dundee
Department of Physiology
Dundee DD1 4HN, Scotland
 ^{42}Ca , ^{44}Ca , ^{50}Cr , ^{63}Cu , ^{65}Cu , ^{99}Mo ,
 ^{97}Mo , ^{108}Pt , ^{147}Sm , ^{150}Sm , ^{152}Sm ,
 ^{154}Sm , ^{173}Yb , ^{90}Zr
- SPAIN
- 267 Fairchild Singapore PTE LTD
11, Lorong 3, Toa Payoh
Singapore, 1232
Atten: Finance Dept.
China
CHEMICONTRON, S.L.
Division Quimica
Avda. Filipinas, 46
Madrid-3 Spain
 ^{87}Rb
- SWEDEN
- 268 Chalmers University of Technology
Gibraltargatan 5-b
Gothenburg, Sweden
 ^{63}Cu , ^{65}Cu , ^{124}Sn
- 269 Forskningsinstitutet for Atomfysik
Stockholm 50, Sweden
 ^{200}Hg , ^{202}Hg , ^{204}Hg
- 270 Lunds Universitet
Radiofysiska Institutionen
Laserettat
 ^{208}Pb
- 271 Stockholm, University of
Vanadisvagen 9
Stockholm VA, Sweden
 ^{63}Cu
- 272 Tandem Accelerator Laboratory
Box 533
S-751 21 Uppsala, Sweden
Sweden
 ^{150}Gd , ^{208}Pb , ^{208}Pb , ^{76}Se , ^{84}Se , ^{82}Se ,
 ^{203}Tl , ^{205}Tl
- 273 University of Umea
S-901 87 Umea
Sweden
 ^6Li
- SWITZERLAND
- 274 Bern Universitat
3000 Bern, Switzerland
 ^6Li , ^{190}Os
- 275 CERN
European Organization for Nuclear Resea
1211 Geneve 23, Switzerland
 ^{152}Er
- 276 Erlbourg, University of
1700 Fribourg, Switzerland
TGS, ^{168}Yb
- 277 Swiss Institute for Nuclear Research
5234 Villigen, Switzerland
 ^{150}Gd , ^{120}Te , TGS, ^{170}Yb
- 278 Zurich, der Universitat
8001 Zurich, Switzerland
TGS, ^{90}Zr
- UNITED KINGDOM
- 279 National Radiological Protection Board
Chilton, Didcot
Oxfordshire, OX11 0RQ, England
 ^{67}Zn

11. ALPHABETICAL LIST OF ISOTOPES. CROSS-REFERENCED TO CUSTOMER NUMBERS

A. DOMESTIC

Antimony 123	Chlorine 035
80	112, 136
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136	88, 136, 139
Barium 135	Chromium 050
65, 139	24, 75, 112, 135, 136, 139
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 1, 5, 41, 66, 75, 102, 112, 136, 138,
 139, 142, 150, 151
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 5, 63, 75, 110, 113, 136, 142
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 5, 8, 18, 22, 28, 40, 65, 66, 75, 87,
 90, 112, 126, 129, 136, 138, 141, 145,
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 75
 Lead 204
 17, 83, 136
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 83, 125, 130, 139, 142
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 25, 110, 125, 134, 136
 Lead 208
 5, 25, 70, 94, 100, 125, 133, 136,
 156, 165
 Lithium 006
 3, 5, 10, 19, 23, 25, 26, 34, 35, 41,
 49, 55, 57, 72, 75, 78, 88, 89, 90,
 91, 92, 101, 105, 108, 125, 141, 142,
 160, 163, 165
 Lithium 007
 3, 5, 25, 26, 34, 44, 57, 72, 74, 106,
 111, 125, 127, 136, 142, 164
 Lutetium 176
 15, 148
 Magnesium 024
 5, 24, 88, 110, 136, 142, 154
 Magnesium 025
 36, 90, 104, 110, 134, 139
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 16, 136
 Mercury 198
 15, 56, 142, 148, 156
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 88, 159
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 56
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 18, 24, 52, 56, 88, 137, 139
 Mercury 202
 142
 Mercury 204
 24, 56, 69, 94, 155, 166
 Molybdenum 092
 5
 Molybdenum 094
 5, 164
 Molybdenum 095
 15, 48, 59, 75, 146

Molybdenum 096	Palladium 102
5	103
Molybdenum 097	Palladium 104
15	101
Molybdenum 098	Palladium 106
5	101
Molybdenum 100	Palladium 108
15, 75	101
Neodymium 142	Palladium 110
24, 107, 136	101
Neodymium 144	Platinum 190
5, 25, 136	143
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	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS
ANTIMONY-121	1	400.0	560		-106.0	-102				1	294.0	457
ANTIMONY-123	1	138.0	193	3	1081.0	1393				4	1219.0	1586
BARIIUM-130				1	5.0	106				1	5.0	106
BARIIUM-132				1	1.0	576				1	1.0	576
BARIIUM-134							1	64.0	4598	1	64.0	4598
BARIIUM-135				1	50.0	100	2	282.0	200	3	332.0	300
BARIIUM-137							1	190.0	100	1	190.0	100
BROMINE-79				3	2450.0	1837	1	150.0	112	4	2600.0	1950
BROMINE-81				2	320.0	270				2	320.0	270
CADMIUM-110	2	300.0	630							2	300.0	630
CADMIUM-111	4	239.0	551	1	100.0	230				5	339.0	781
CADMIUM-112	6	60000.0	30000	1	20000.0	10000	1	1000.0	450	8	81000.0	40450
CADMIUM-113	1	130.0	578					133.0	145	1	263.0	723
CADMIUM-114	1	222.0	100	1	2000.0	900	3	2000.0	716	5	4222.0	1716
CALCIUM-41	1	181.0	100	1		839	1	4.9	7495	3	185.8	8434
CALCIUM-40	3	705.0	485	4	1954.0	1352	2	1153.8	666	9	3812.8	2504
CALCIUM-42	3	318.0	4728	7	420.0	7115	2	320.0	5368	12	1058.0	17211
CALCIUM-43				2	7.0	2261	3	13.0	3784	5	20.0	6045
CALCIUM-44	3	298.0	1122	8	1208.0	4390	3	1074.0	3903	14	2580.0	9415
CALCIUM-46	2	11.0	17195	3	43.0	84020	2	57.0	137151	7	111.0	238367
CALCIUM-48	2	254.0	12852	5	226.0	39426	5	757.0	160040	12	1237.0	212318
CERIUM-140								500.0	100		500.0	100
CERIUM-142	1	50.0	8	2	110.0	208	-1			2	160.0	216
CHLORINE-35	1	250.0	100	3	2300.0	920	1	1000.0	400	5	3550.0	1420
CHLORINE-37				1	1100.0	8140	3	1017.0	6052	4	2117.0	14192
CHROMIUM-50	4	570.0	3233	10	2344.0	12647	2	119.0	429	16	3033.0	16310
CHROMIUM-52				1	120.0	102	1	151.0	98	2	271.0	200
CHROMIUM-53				1	50.0	125				1	50.0	125
CHROMIUM-54	1	20.0	262	1	100.0	1310				2	120.0	1572
COPPER-63	5	2602.0	550	7	7816.0	1722	1	2000.0	263	13	12418.0	2536
COPPER-65	5	1733.0	504	7	3895.0	1743	6	7525.0	3400	18	13153.0	5648
DYSPROSIUM-156	1	12.0	217							1	12.0	217
DYSPROSIUM-158	2	8.0	104				1	8.0	76	3	16.0	180
DYSPROSIUM-160	1	100.0	140							1	100.0	140
DYSPROSIUM-161				3	790.0	302				3	790.0	302
DYSPROSIUM-162	2	834.0	200	2	3500.0	1100	1	340.0	102	5	4674.0	1402
DYSPROSIUM-163	1	40.0	100	1	500.0	175				2	540.0	275
DYSPROSIUM-164							1	95.0	100	1	95.0	100
ERBIUM-162				1	50.0	332				1	50.0	332
ERBIUM-166	1	175.0	100							1	175.0	100
ERBIUM-167	2	461.0	200	1	400.0	100				3	861.0	300
ERBIUM-168	3	1140.0	312	2	1000.0	250				5	2140.0	562
ERBIUM-170	1	350.0	105	2	700.0	250	5	1295.0	472	8	2345.0	827
EUROPIUM-151	2	1091.0	550	6	3648.0	1623	1	225.0	101	9	4964.0	2274
EUROPIUM-153				2	1250.0	562	1	2575.0	644	3	3825.0	1206
GADOLINIUM-152	2	16.0	339	3	400.0	6650				5	416.0	6989
GADOLINIUM-154				2	183.0	779				2	183.0	679
GADOLINIUM-155				1	120.0	210	1	60.0	68	2	180.0	278
GADOLINIUM-156				1	20.0	100				1	20.0	100
GADOLINIUM-157							2	200.0	242	2	200.0	242
GADOLINIUM-158				4	592.0	400	2	120.0	200	6	712.0	600
GADOLINIUM-160	2	5000.0	4500	4	2456.0	2215				6	7456.0	6715
GALLIUM-69				4	817.0	450				4	817.0	450
GALLIUM-71				3	517.0	440	2	142.0	-200	5	659.0	640
GERMANIUM-72	1	40.0	108	1	100.0	165				2	140.0	273
GERMANIUM-73	2	220.0	1331	4	110.0	665	1	17.0	102	7	347.0	2099

ISOTOPE	D O M E S T I C			F O R E I G N			P O J E C T			T O T A L		
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS
GERMANIUM-74				2	1600.0	1680	2	402.0	42	4	2002.0	1722
GERMANIUM-76				4	200.0	2297				4	200.0	2297
H.P. GD-155				1	50.0	312				1	50.0	312
H.P. GD-157				2	150.0	502	c	110.0	328	4	260.0	830
H.P. PU-242	1	5.0	79	1	20.0	317				2	25.0	397
H.P. SM-150	1	80.0	596	2	64.0	476				3	144.0	1072
H.P. SR-84	1	1.0	629	6	9.0	5661	1	1.0	626	8	11.0	6916
H.P. ZINC 70	1	20.0	3099							1	20.0	3099
HAFNIUM-177	1	219.0	355				1	400.0	689	2	619.0	1044
HAFNIUM-178							1	91.0	90	1	91.0	90
HAFNIUM-179	1	135.0	101	2	300.0	525	1	200.0	99	4	635.0	725
HAFNIUM-180	2	120.0	205	3	349.0	471	1	161.0	168	6	630.0	844
HANDLING CHARGE			170			85			285			540
INDIUM-113				1	100.0	1315	1	10.0	131	2	110.0	1446
IRIDIUM-191	1	10.0	100	4	500.0	1875				5	510.0	1975
IRIDIUM-193				2	400.0	840				2	400.0	840
IRON-54	7	1569.0	4784	5	1734.0	2057	5	1427.0	2970	17	4730.0	9813
IRON-56	4	6000.0	600	6	28589.0	2858	1	4500.0	443	11	39089.0	3901
IRON-57	21	2703.0	21834	13	1239.0	10161	9	567.3	4311	43	4509.3	36307
IRON-58	1	30.0	1129							1	30.0	1129
LANTHANUM-138				1	5.0	202				1	5.0	202
LEAD-204	2	115.0	838				2			2	115.0	838
LEAD-205				2		996				2		996
LEAD-206	3	500.0	645	4	500.0	645	2	106.0	128	9	1106.0	1418
LEAD-207	4	812.0	776	2	220.0	214		398.0	205	6	1430.0	1196
LEAD-208	6	5566.0	2761	6	2651.0	1565	8	5579.0	2232	20	13796.0	6558
LUTETIUM-176	1	85.0	348	2	150.0	420		20.0	100	3	255.0	868
MAGNESIUM-24	1	300.0	105	6	4446.0	1570	5	7258.0	2369	12	12004.0	4044
MAGNESIUM-25	5	1325.0	2652	6	979.0	1958	2	200.0	400	13	2504.0	5010
MAGNESIUM-26	1	200.0	370				1	903.0	380	2	1103.0	750
MERCURY-196				1	13.0	10231				1	13.0	10231
MERCURY-198	3	37.0	741	1	50.0	892	3	55.0	826	7	142.0	2460
MERCURY-199	1	6.0	123	2	115.0	2363	1	50.0	902	4	171.0	3389
MERCURY-200	1	20.0	491	1	30.0	736				2	50.0	1227
MERCURY-201	3	653.0	6946	1	20.0	432	6	330.0	6783	10	1003.0	14161
MERCURY-202				3	60.0	921	1	20.0	240	4	80.0	1161
MERCURY-204	4	81.0	1735	5	280.0	5576	1	30.0	508	10	391.0	7819
MOLYBDENUM-092				5	1427.0	705	1	350.0	50	6	1777.0	755
MOLYBDENUM-094				4	1454.0	762	2	750.0	271	6	2204.0	1033
MOLYBDENUM-095	5	4850.0	1455	6	5069.0	1520	1	50000.0		12	59918.0	2975
MOLYBDENUM-096				4	2200.0	550	1	400.0	100	5	2600.0	650
MOLYBDENUM-097				7	2957.0	1412				7	2957.0	1412
MOLYBDENUM-098				4	2000.0	2500	1	100.0	104	5	2100.0	2604
MOLYBDENUM-100	3	600.0	300	4	14400.0	6555	1	200.0	100	8	15200.0	6955
NEODYMIUM-142	1	100.0	185	1	566.0	695	3	2330.0	2991	5	2996.0	3871
NEODYMIUM-144				3	2450.0	937	3	1312.0	661	6	3762.0	1598
NEODYMIUM-145	1	20.0	124	3	254.0	316	1	118.0	100	5	392.0	541
NEODYMIUM-146				1	100.0	380	1	1566.0	574	2	1666.0	954
NEODYMIUM-148	1	85.0	114	4	310.0	606				5	395.0	720
NEODYMIUM-150	5	264.1	791	5	309.0	1555	1	70.0	104	12	643.1	2451
NICKEL-58	3	3900.0	1365	3	6700.0	2345	5	129410.0	43129	11	140010.0	46839
NICKEL-60	2	900.0	225	1	400.0	100	4	18675.0	2265	7	19975.0	2590
NICKEL-61	7	237.0	3409	3	90.0	1255	1	15.0	216	11	342.0	4881
NICKEL-62	4	205.0	1788	6	4390.0	38193	2	6128.0	38063	12	10723.0	78045
NICKEL-64	3	143.0	2166	1	200.0	3030	3	1400.0	8966	7	1743.0	14162
OSMIUM-186	1	2.0	516	1	50.0	12900				2	52.0	13416
OSMIUM-187	1	7.0	100	1	10.0	139	1	10.0	119	3	27.0	358

ISOTOPE	DOMESTIC			FOREIGN			PROJECT			TOTAL		
	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS	SHIP	MILLIGRAMS	DOLLARS
TELLURIUM-125	1	30.0	204	5	450.0	3060				6	480.0	3264
TELLURIUM-126				3	2600.0	1640				3	2600.0	1640
TELLURIUM-128	1	87.0	100	4	6400.0	2820	4	1800.0	2273	9	8287.0	5193
TELLURIUM-130				6	4052.0	2369				6	4052.0	2369
THALLIUM-203	2	100200.0	185340	6	111400.0	183882	1	55.0	101	9	211655.0	369324
THALLIUM-205	3	4251.0	1912	2	400.0	235				5	4651.0	2147
TIN-112				4	1080.0	20898				4	1080.0	20898
TIN-114	1	10.0	137	3	410.0	6130	1	294.0		5	714.0	6267
TIN-115	1	5.0	467							1	5.0	467
TIN-116	1	285.0	100	3	885.0	310	2	550.0	157	6	1720.0	567
TIN-117				1	300.0	105	2	407.0	199	3	707.0	304
TIN-118	1	100.0	115	1	200.0	480	4	2436.0	4256	6	2736.0	4851
TIN-119	2	2000.0	600	7	5561.0	2108	1	400.0	434	10	7961.0	3142
TIN-120	1	300.0	120	4	4500.0	1800	2	500.0	121	7	5300.0	2041
TIN-122	1	150.0	105	5	2850.0	2085	2	1175.0	709	8	4175.0	2899
TIN-124	1	239.0	131	3	450.0	490	2	1300.0	935	6	1989.0	1556
TITANIUM-47	1	120.0	102	1	150.0	127				2	270.0	229
TITANIUM-48		2014.0	362	1	400.0	120	1	300.0	61	2	2714.0	543
TITANIUM-49							1	124.0	128	1	124.0	128
TUNGSTEN-180	1	11.0	100							1	11.0	100
TUNGSTEN-182				1	400.0	120				1	400.0	120
TUNGSTEN-184	1	300.0	105	1	400.0	140			2	700.0	245	
TUNGSTEN-186				1	400.0	180			1	400.0	180	
VANADIUM-50	1	10.0	1211							1	10.0	1211
YTTERBIUM-168	1	1.0	100	7	888.0	219063	1	1.0	199	9	890.0	219362
YTTERBIUM-170				1	100.0	450				1	100.0	450
YTTERBIUM-171				2	325.0	276	1	120.0	102	3	445.0	378
YTTERBIUM-172	1	200.0	170	2	400.0	330			3	600.0	500	
YTTERBIUM-173				1	165.0	100			1	165.0	100	
YTTERBIUM-174	2	500.0	425	2	425.0	340			4	925.0	765	
YTTERBIUM-176				7	4600.0	4150			7	4600.0	4150	
ZINC-64	1	400.0	220	1	2500.0	1375			2	2900.0	1595	
ZINC-66	2	150.0	112						2	150.0	112	
ZINC-67	7	435.0	2434	5	302.0	1585	2	520.0	2730	14	1257.0	6749
ZINC-68	6	79080.0	197700	4	174000.0	435000	2	1380.0	2848	12	254460.0	635548
ZINC-70	5	143.0	6212	3			1	230.0	9982	6	373.0	16194
ZIRCONIUM-90	2	312.0	297	3	590.0	580	1	100.0	100	6	1002.0	977
ZIRCONIUM-91		610.0	8235	1	20.0	265	1	7.0	106	2	637.0	8606
ZIRCONIUM-92	1	100.0	160	4	320.0	490			5	420.0	650	
ZIRCONIUM-94				3	140.0	320			3	140.0	320	
ZIRCONIUM-96				2	40.0	2961			2	40.0	2961	
TOTAL	370	325185.4	659166	541	536761.1	1438596	222	283254.9	536721	1133	1145201.4	2634485

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