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# TECHNICAL NOTE

467

Part 2 Appendices

## ACTIVATION ANALYSIS: A BIBLIOGRAPHY



U.S. DEPARTMENT OF COMMERCE  
National Bureau of Standards

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<sup>1</sup> Headquarters and Laboratories at Gaithersburg, Maryland, unless otherwise noted; mailing address Washington, D. C. 20234.

<sup>2</sup> Located at Boulder, Colorado 80302.

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UNITED STATES DEPARTMENT OF COMMERCE  
C. R. Smith, Secretary  
NATIONAL BUREAU OF STANDARDS • A. V. Astin, Director



# TECHNICAL NOTE 467

## Part 2 – Appendices

### ACTIVATION ANALYSIS: A BIBLIOGRAPHY

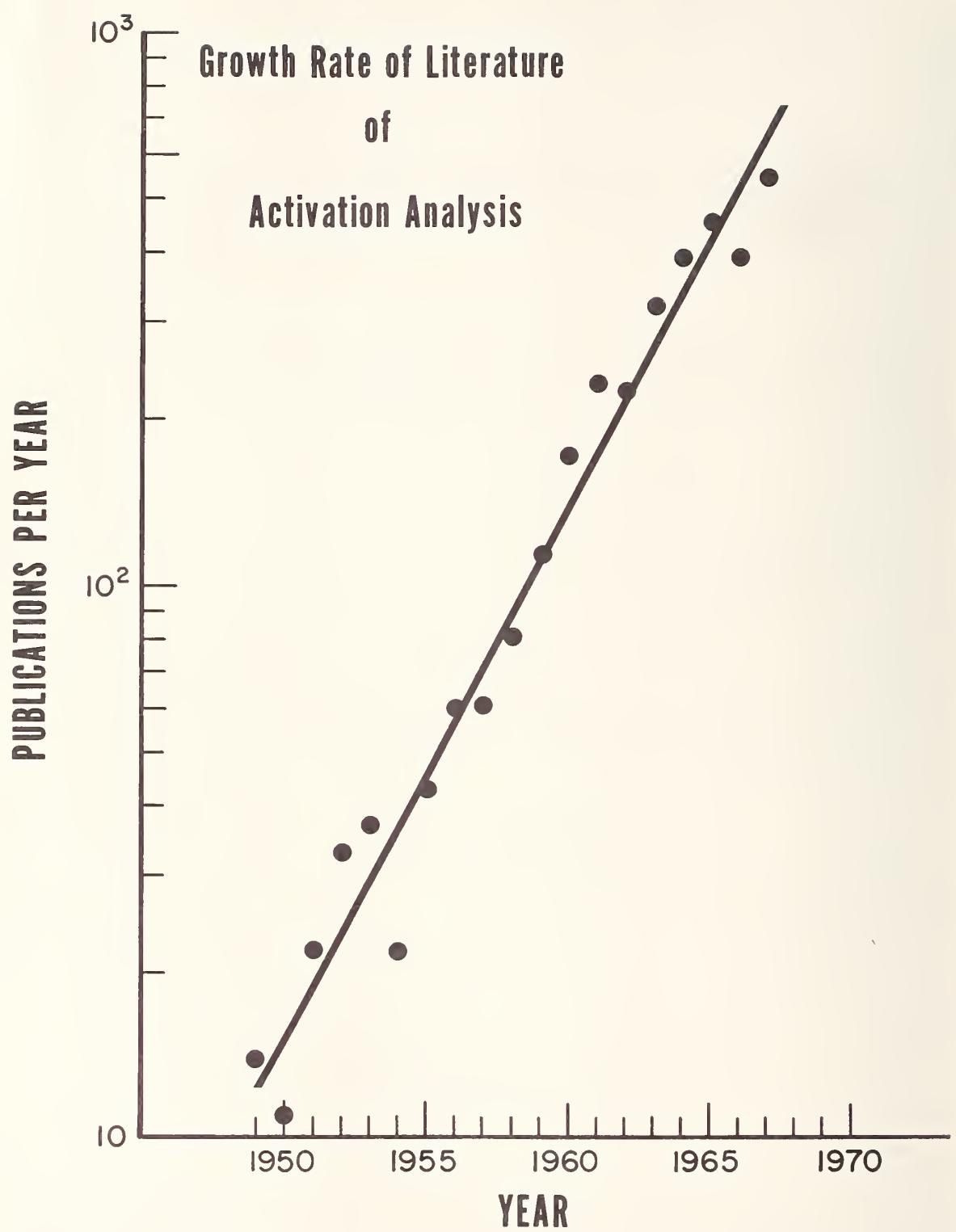
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ACTIVATION ANALYSIS - A BIBLIOGRAPHY  
(Part 2)

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ABSTRACT

References to activation analysis in the open literature are published from a computer readout. The first part of the two-part series contains references numbered according to their accession to the system. The second part contains an author index and three additional indices for "element determined", "matrix analyzed", and "technique used". The two parts, when used together, permit a literature search defined by the three indices. Part 1 will be updated periodically by addenda containing new references while Part 2 will be periodically revised and replaced by new pages which include cross references to the new accessions.

Key words: Activation analysis, bibliography, element determined, literature file, matrix analyzed, technique used.



## APPENDIX I



## ACTIVATION ANALYSIS-AUTHORS

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BANDEL, D.	1050
BANDO, S.	419 2683 3341
BANKS, T.E.	33 34
BANTA, H.E.	1294
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BATE, L.C.	43 291 292 625 640 641 654 763 946 973 981 1031 1060 1075 1077 1268 1550 1361 1635 1709 1713 1725 1727 1746 1795 2157 2699 2881 2931 4232 5711
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BAUDIN, G.	2927
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BAYLE, P.	5444
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BEAMISH, F.E.	4307 4312

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BECK, J.S.	1078
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BEESON, M.H.	5936
BELIARD, L.	5765
BELKAS, E.P.	1964 4272
BELL, P.R.	2684
BELLANCA, S.C.	2792 2959
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BELOV, V.I.	2965
BELYAKOV, M.A.	855 3375
BENJAMIN, R.W.	2686 3070
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BETTENS, B, 1968  
BETTERIDGE, D, 2455  
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BILEFIELD, L.I.	522 1080 1106
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BILIMOVICH, G.N.	5786
BIRCANIN, L.	2149
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BLANC, D.	1543 5444
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BLOMSTRAND, R.	1242 1342 1747
BLONDEL, A.	1503
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BOBACK, M.W.	2122
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BOBROV-EGOROV, N.N.	5317

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BOCK-WERTHMANN, W.	627 711 857 1179 2513 2775 5982
BODDY, K.	6015 6047
BODNAR, J.	1005
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BOGDAN, J.F.	2493
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BOISDE, G.	2726
BOIVIN, M.	5520
BONDY, C.	2924 4264 5968
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BORELLA, A.	1919 3082
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BORGHOLTHAUS, D.	36
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BORN, H.J.	60 61 196 1252 1330 1528 1532 1730 1814 2543 3986 3992 5439
BORNER, W.	2813
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BOSHOLM, J.	2621
BOTTINO, M.L.	913
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BOUNDEN, J.E.	1701 2527
BOUTEN, F.	581
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ROUTEU, P.	893
BOUVILLE, A.	1543
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BRUCER, M.	335
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BURNS, F.C.	1107 1266 1453 1739 3781 5339
BURNS, R.S.	3283
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BURROWS, B.A.	2972
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CAMPANILE, V,A, 733  
CAMPBELL, L, 862  
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CIUFFOLOTTI, L. 873 1097 1455 1456  
CLAEYS, A. 1748  
CLARK, H.M. 106 610  
CLARK, L., JR. 1618 1787  
CLARK, R.G. 1802  
CLARK, R.S. 5716  
CLAYTON, C.G. 1922  
CLESS-BERNERT, T. 1821  
COATES, A.D. 3973  
COBB, J.C. 1101 1485 3780  
COCKBILL, M.H. 1102  
COCKS, F.H. 1966  
COHAN, M. 2647 2648  
COHAN, M.D. 450 2521 2522  
COHN, S.H. 6064  
COJOCARU, V. 796 803  
COLARD, J. 107 1552 6011 6063

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COLAS, R,	1503
COLEMAN, R,F,	108 109 110 111 514 875 1103 1104 4304 4380 5390 5401
COLOMBO, U,P,	1254
COLORADO SCHOOL OF MINES RESEARCH FOUNDATION, INC.	2796
COMANESCU, V,	1822
COMAR, D,	570 882 1105 1143 1250 1278 1824 2558 3728 3745 5596 5701 5998 6001
CONDAMIN, J,	5579
CONDIT, R,H,	346 1483
CONNALLY, R,E.	3117
CONNER, J.P,	1967
CONNOR,J,	263
CONRAD, F,J,	1112 2568 4228 4274 6062
COOK, C,F,	519
COOK, G,B,	681 715 793 1255 2882
COON, J,H,	114
COOPER, R,	2972
COOPER, R,D,	4204 5977
COQUEMA, C,	1454
CORIOU, H,	2720
CORLESS, J,T,	1457 1726 1872 2687 2737 3102 6073
CORLISS, J,B,	5936
CORLISS, W,R,	532
CORNISH, F,W,	115 396

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CORNU, A.	2768
CORNUET, R.	891 1352 1503
CORTH, R.	955
CORYELL, C.D.	1362
COSGROVE, J.F.	116 117 370 371 980 5955 6049 6065
COTTINO, F.	5999
COTZIAS, G.C.	929 1206 1705 2733
COUCHOUD, S.	4393
COULOMB, R.	1817
COULY, J.	1543
COVAULT, D.O.	1917
COVEART, A.S.	1924
COVELL, D.F.	2547 3438
COWPER, G.	1924
CRAM, S.P.	5338 6078 6084 6085
CRAMBES, M.	2129 2280 3487
CRAWFORD, G.I.	3502 3750
CRESPI, M.B.A.	1255
CRIPPS, F.H.	4380 5390
CRISTU, M.	803
CRISTY, G.A.	1048
CROCKET, J.H.	523 524 2839 5717
CROFFORD, W.N.	1568
CROWTHER, P.	1643
CRUMP, J.G.	3460

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CRUMPTON, D.	5594
CSADA, G.I.	5499
CSADA, I.	5793
CSAJKA, M.	1613 3661 4190 5712
CSONKE, A.	2659
CUFF, D.R.A.	2429 5372
CURCANEANU, D.	3759
CURIE, I.	118 119 120
CURRAN, S.C.	121 122 354
CURRIE, L.A.	4224
CURRIE, R.L.	1813
CURTIS, H.J.	123
CUTHBERT, G.	1231
CUYPERS, J.	1378 2567
CUYPERS, M.	546 1378 1477 2550 2567 6059
CUYPERS, M.Y.	1978 2586 2707 3461
CYPRES, R.,	1968
CZAMANSKE, G.K.	1107
D AGOSTINO, M.D.	707 3075 5383
D HONT, M.	877
DA SILVA FILHO, J.G.	2904 2930
DABAGIAN, H.J.	232
DAREK, W.	903
DAGLISH, M.	1087

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DAHL, J.B.	50 2853
DAHMER, L.H.	4411
DAKHNOV, V.N.	1061
DALE, R., MCS.	124
DALTON, J.V.	5402
DALY, P.J.	5403
DALZIEL, J.A.W.	1108
DAMS, R.	4254 5349 5447 5730
DANFORTH, J.P.	1590
DANGUY, L.	125
DANIEL, R.	1535 3997
DANILCHENKO, I.D.	5317
DANIS, A.	1410
DARDANONI, L.T.	4243
DARRALL, K.G.	5714
DAS, H.A.	372 854 2838 3738 4230 5996
DAS, M.S.	3560
DASHER, J.	169
DAUDEL, P.	127 128
DAUDEL, R.	126 645
DAVIES, W.H.	514
DAVIS, R.C.	5571
DAYAL, N.	2318
DE BOECK, R.	5381
DE BRUIN, M.	6019

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DE BRUYNE, P.,	87
DE CARVALHO, A.M.B.	5770
DE GOEIJ, J,J,M,	2562 2755 6013
DE HEVESY, G.	1379
DE LA BARRE, F.	2620
DE LANGE, P,W,	5761
DE NEVE, R,	2430 2431 2497 3485 3993
DE PADOVANI, I,O	1970
DE SOETE, D,	886 1560 1735 1827 2430 2497 3485 3993 5772
DE VEGA, V,R,	1970
DE VOE, J,R,	2280 2536 2539 2592 2593 2978 3910 4224 5784
DE WET, W,J,	5410 5761
DE, A,K,	129 130
DEAK, M,	1842
DEAN, J,A,	83
DEAN, M,H,	3391
DEBIARD, R,	5445
DEBIESSE, J,	1262
DEBRUN, J-L,	5954
DECAT, D,	866 877 880 986 1156 1234
DECCELL, R,F,	348
DECKER, C,F,	1141
DECKER, J,L,	2123
DEGRAZIA, A,R,	1383

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DEHAAN, A., JR. 132  
DEIBE, J. 802  
DELBECQ, C.J. 133  
DELLONTE, S. 5448  
DELUCCHI, A.A. 634  
DEMIDOV, A.M. 948 6053 6072  
DEMILDT, A.C. 771 1256  
DEMJEN, Z. 1005  
DEPANGHER, J. 1  
DERBLAY, P.R. 2719  
DERRICK, K.S. 5571  
DESAI, H.B. 1590 6560  
DESCHAMPS, N. 815 821 851 879  
DESSOUKY, Y.M. 4319  
DETERDING, J.H. 2651  
DEUTSCHMAN, J.E. 5409  
DEWAR, W.A. 134 154 2719  
DEYRIS, M. 781 851 3721 3722  
DIBBS, H.P. 669 972 1353 3718 3785  
DICKINSON, R. 1231  
DICKSON, R.C. 2503 3956  
DIEBOLT, J. 1539 1891 2557  
DIECIDUE, A.T. 2732  
DIECKERT, J.W. 5571  
DIENSTBIER, Z. 1948

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DIMITRIADOU, A,	965 1110
DIVISION OF ISOTOPES DEVELOPMENT	5527
DIXON, B,W,	4255
DIZDAR, Z,	2145 2149
DJOURKOVITCH, O.	188
DMITROVSKII, A,A	5435
DOGADKIN, N,N,	1648
DOGE, H,G.	1485 1592 1632 3990
DOGNIN, J,	3991
DOLOMANOVA, E,I,	5965
DOMINGUEZ, G,	2714
DOPEL, K,	135
DOPEL, R,	135
DORCIOMAN, D,	803
DOROSH, M,M	4277
DORPEMA, B,	5583
DOSHI, G,R,	2786
DOW CHEMICAL COMPANY	1724 2608
DOW SPECTROSCOPY	660
DOWLING, J,H,	902
DOWNS, W,E,	2147
DOWNTON, D,W,	2526
DRAGANIC, I,	1696
DRAGNEV, T,N,	5429

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DREVER, R.W.P.	354
DREW, D.D.	1809 2574
DRINKIN, V.I.	1558
DRUSCHEL, R.E.	292
DRUYAN, R.	156 730
DRYNKIN, V.I.	1445
DUBEAU, N.P.	1029
DUBINSKAYA, N.A.	5727 5869
DUBOIS, J.	1552 2604 6011 6063
DUC, T.M.	5580
DUCE, R.A.	1266 1569 1874 2873 5397 6017
DUFFFY, D.	738 2141 2665 2722 5407 5743 5747
DUFTSCHMID, K.E.	5994
DUGAIN, F.	1165 1417 1741 1759 1983 2668 5593
DUKENBAEVA, A.R.	5626
DUMESNIL, P.	5449
DUNCAN, R.N.	4327
DUNHAM, C.L.	4376
DUNN, A.L.	1041 1975
DUNN, R.W.	138 512 513
DURBIN, D.R.	5884
DURHAM, R.W.	701

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DUTINA, D.	1509
DUTOV, A.G.	2385 3369 3371 3384 3395 5706
DUTOV, A.I.	3370
DUXBURY, G.	2981
DUYCKAERTS, G.	2713 4303
DVUKHBABNAYA, T.M.	1585
DYBCZYNSKI, R.	2932 2989 5341
DYER, F.F.	819 1361 1499 1716 1717 1725 1796 2531 2533 2699 5711
DYER, I.A.	2685
DYER, N.C.	5756
DYMOND, J.A.	61
DZHEMARDYAN, Y.A.	5854
EASTWOOD, T.A.	141 2787
EBERHARDT, P.	5592
EBERT, K.H.	142 143
EDEN, Y.	4205
EDGINGTON, D.N.	3958
EDWARDS, J.	2733
EDWARDS, J.W.	1178
EDWARDS, L.C.	144
EDWARDS, R.R.	926 6057
EECKHAUT, J.	305
EECKHAUT, Z.	304 306
EGAWA, M.	5566

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EGGEBRAATEN, V.L. 2524  
EGIAZAROV, B.G. 2564 3751  
EGOROVA, A.A. 871  
EHLERS, K.W. 77  
EHMANN, W.D. 9 145 146 199 285 698 988 1002 1017  
1022 1117 1169 1214 1566 1571 1718  
2506 2774 2975 3352 3774 5720 5775  
5884  
FICHELBERGER, J.F. 1609 1637 2591 2596  
EICHHOLZ, G.G. 147  
EIFE, K. 5552  
EISNER, U. 4410  
EL-SHAMY, H.K. 1856 2654  
ELDRIDGE, J.S. 822 1643 1934 1942 1943 1944  
ELEK, A. 1615  
ELLETT, W.H. 3443  
ELLIS, W.H. 2534 2540 2772 6006  
EMELEUS, V.M. 561 1132  
EMERY, J.F. 291 292 640 641 819 964 974 1031  
1035 1268 1361 1635 1709 1715 1725  
1727 1796 2533 2931  
EMHISER, D.E. 274 275  
EMMERT, R.A. 4289  
ENDO, T. 572 778 1174 1693  
ENGELMANN, C. 578 814 849 1043 1263 1778 1816 1823  
2298 2555 3727 5442 6070  
ENGLAND, E.A.M. 2433

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FNGLAND, L.D.	2254 3070 3976
ERICKSON, N.E.	0140
ERION, W.E.	148
EROFEeva, N.N.	5435
EROKHINA, K.I.	149
ERWALL, L.G.	562 573 2563 3733
ESPAÑOL, C.E.	537d
ESTEY, H.P.	3962
EUKEL, W.W.	77
EULER, B.A.	2547
EUROPEAN ATOMIC ENERGY COMMUNITY	1918 1927 3777
EVANS, C.A., JR.	2514
EVANS, R.D.	1953 2694 2762
EVSEENKO, Y.	1548
EYCHENNE, M.	5444
FABBRI, F.	1415
FACCHINI, U.	151
FALCOFF, R.	2327
FANALE, D.T.	803
FARAGGI, H.	120
FASOLO, G.B.	883 1097 1167 1254 1456
FAURE, J.	3991
FAVALE, A.J.	707

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FEARING, H.W.	909
FEDOROV, V.V.	1430
FELDMAN, I.I.	3462 5577
FELDMAN, M.H.	2584 2585 2637 6068
FELKER, V.M.	2957
FELS, I.G.	938
FENDRIK, I.	5992
FERENCZY, Z.	1113
FERGUSON, R.L.	1268
FERGUSSON, A.G.	154 2719
FERRETT, D.J.	466 615
FEUERSTEIN, H.	2333
FIELDS, T.	938 1141 2125 2535 3710
FIESS, H.	1801
FIFIELD, F.W.	362 600
FILBY, R.H.	1432 1433 1480 1678 2509 2669
FILIPPOV, E.M.	2960
FILIPPOVA, N.V.	3365
FINEMAN, I.	562 573 620 1114 3756
FINK, R.W.	77 157
FINSTON, H.	1860
FINSTON, H.L.	3120 4194
FIREMAN, E.L.	158 563 721
FIREMAN, P.	2730
FISCHER, E.	1525

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FISHER, C.	51 159 564
FISHER, D.E.	1580 1719 1793 1813 5721
FISHMAN, M.J.	2656 4412
FITE, L.F.	574 642 845 1033 1058 1567 1702 1712 1721 1809 1866 1912 2586 2702 2740 3662 5434
FITZGERALD, J.V.	274 275
FLECHON, J.	28
FLECKENSTEIN, A.	1704
FLEGENHEIMER, J.	1504
FLEISCHER, A.A.	1830
FLEISHMAN, D.	2553
FLEISHMAN, D.M.	592
FLEROV, G.N.	301
FLETCHER, K.E.	5547
FLEURENCE, A.	1540
FLIKKE, M.	5405
FLORKOWSKI, T.	5866
FODOR-CSANYI, P.	5348
FOGELSTROM-FINEMAN, I.	160
FOLDZINSKA, A.	1862 6054
FONTAN, J.	1543
FORBERG, S.	919
FORRO UNIVERSAL	653
FORSBERG, H.G.	562

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FORSEN, S.	3965
FORSHUFVUD, S.	565 1225 2570
FORSLEV, A.W.	1422
FOSTER, L.M.	101
FOUARGE, J.	162 2713 4303
FOUCHE, K.F.	4253
FOURCY, A.	2736 2876 3991 4315 5445 5978
FOURNET, L.	760 821 851 879 1410 1699
FRADKIN, G.M.	1430
FRANKE, K.-H.	1000
FRANZ, I.	867
FRANZGROTE, E.	4289
FRASER, R.	1110
FRASER, T.R.	965
FREEDMAN, M.S.	103
FREMLIN, J.H.	6004
FREY, F.A.	6079
FREYBERGER, W.L.	109 171
FRIEDLANDER, G.	1777
FRISCHAUF, H.	1767 3328 3360 5947
FRITZ, G.J.	2540 2772
FRITZ, K.M.	2798 3357 3981
FRITZE, K.	550
FROHBERG, M.G.	2678
FRYER, G.E.	1684

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FRYER, J.R.	1168
FRYKBERG, B.	1089
FUJII, I.	375 426 506 899 960 998 1015 1016 1038 1063 1115 1116 1399 1530 1656 1681 2649 2749 3768 5380 5431 5432
FUJIMOTO, M.	5928
FUJINO, O.	5776 5777
FUJINO, R.	1170 1697
FUJINO, T.	1019
FUKAI, R.	164 165 409 758 823
FUKAO, Y.	2297
FUKASE, M.	2440
FUKUDA, K.	2711
FULLER, R.K.	2553
FURR, A.K.	4287 5744
FURUHASHI, N.	5726
FURUKAWA, M.	1151 1194 1742 3995
FURUKAWA, Y.	5919
GADDA, F.	624 762
GAHN, R.F.	3085
GAITANIS, C.D.	161
GAITTET, J.	166 167 767
GALE, A.J.	91 92 1808
GALESLOOT, T.E.	5996
GALIANO SEDANO, J.A.	4249

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GALIANO, J.A.	1833 2752 2753
GALLYAS, M.	5348
GAMBARYAN, R.G.	5317
GAN, R.	2634
GANAPATHY, R.	5716
GANGADHARAN, S.	1903 2602 2976 3560
GARBRAH, B.W.	3466 5933
GARDNER, R.P.	700
GAREIS, F.J.	2121
GARREC, J.P.	5445 5978
GARZON, O.L.	3474
GATROUSIS, C.	168
GAUDE, G.	2797
GAUDIN, A.M.	169 170 171 445
GAUER, Z.E.	301
GAUTHIER, P.	172 173
GEBAUHR, W.	174 1118 1354 1731 1839 2769 2788 2840
GEHL, M.A.	1474 1959
GELFMAN, A.Y.	4275
GELLI, D.	1406
GENERAL DYNAMICS /GENERAL ATOMIC DIVISION	566 576 577 598 611 663 764 1279 1876
GEORGIEV, N.	984 2925
GERBIER, R.	876

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GERMAGNOLI, E,	2 1074 1095
GERRARD, M,	3803
GETOFF, N,	176
GIAMBASTIANI, R,	2930
GIBBONS, D,	19 177 178 179 180 574 626 642 769 852 1570 1807 1809 1815 1896 2525 3479 3491 3492 3497 3500 5409
GIJBELS, R,	1119 1425 2515 5363 5364 5940
GILAT, G,	772
GILAT, J,	609 840 843 4194 5262
GILBERT, E,N,	2640 3730 3731 5336 5500 5619 5703 5787
GILL, R,A.	181
GILLESPIE, A,S,, JR.	678
GILLINGS, B,R,D,	418
GILLIS, J,	1211 1221
GILMAN, A,R,	58
GILMORE, J,T,	696 1258 1670 1738
GINTURI, E,N,	3757
GIOVANNETTI, S,	6008
GIRARDI, F,	579 708 790 942 1042 1277 1281 1541 1573 1598 1676 1729 1755 1779 1878 2556 2757 2836 2901 3082 3724 3793 3985 5421 5980 5987 6016
GIRARDI, G,	977 5583
GIROUX, J,	5580
GIRSHIN, A,B,	4197 5435

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GITLIN, D.	2730
GITTER, S.	772 1645
GLASSON, V.V.	1558
GLAZUNOV, M.P.	1227 2306
GLEIT, C.E.	1478 1584 1655 1786 1844
GLENDENIN, L.E.	133
GLOS, M.R.	2670
GLOVER, E.D.	455
GLUBRECHT, H.	2803 5992
GLUCK, P.	1586
GLUKHAREVA, N.A.	1286 2717
GORBI, A.	1091
GOBRECHT, H.	2775 4299 4300
GODA, S.	1513 5777
GODAR, S.	639
GOEDERT, L.	5450 5451 5452
GOENVEC, H.	313
GOFMAN, A.K.	2717
GOLD, R.	184 185
GOLDBERG, E.D.	84 85 86 186 187
GOLDSCHMIDT, B.	188
GOLDSTEIN, G.	983
GOLDSTEIN, M.I.	538
GOLES, G.G.	1122 5718 5936
GOMEZ, H.	802 1734 2926

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GOODMAN, C.	189
GORDIENKO, A.G.	4196
GORDON, R.E.	732
GORDON, C.L.	190 191 1605
GORDON, C.M.	1606
GORDON, G.E.	5936
GORDON, H.S.	77
GORIN, E.	2933
GORODETZKY, S.	4209
GORSHKOV, G.V.	978
GORSKI, L.	621 1623 1859 3335 5866
GORSLUCH, T.T.	192
GOSHI, Y.	1509
GOSSET, J.	1263
GOTO, H.	193 805
GOTTE, H.	194 195
GOVAERTS, J.	203 747
GRABER, F.M.	2272 2350 3100 3101 4284 5979
GRAHAM, L.	2125 2535 3710
GRAKHOV, V.A.	5858
GRAMMAKOV, A.G.	978
GRAND, J.A.	729 1123
GRANDJEAN, P.	197
GRANT, L.G.	966 6006
GRAY, A.L.	1489 2507 2622 3750 4202

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GRAY, F.B.	567
GREEN, D.E.	622 1907 3391
GREEN, F.L.	1590 1591
GREEN, J.L.	4226
GREENDALE, A.E.	634 3333
GREENE, R.E.	261
GREENLAND, L.P.	4388 5307 5718
GREENWOOD, R.C.	665 713 1611 1783 1785 2146 3811
GRIFFON, H.	198
GRILLOT, E.	32 200 202
GRIMANIS, A.P.	686 964 1725 1728 1971 2701 4272 5415 5935 5995
GROSELJ, J.	1487 1840
GROSHEV, L.V.	948
GROSSE-RUYKEN, H.	1592 2621
GROSSMANN, K.-D.	1633
GROSSMANN, O.	1632
GROSSO, P.	1965 3957
GROTHE, K.H.	1578
GROVE, G.R.	1609 1657 2591 2596
GRUMMITT, W.E.	1890
GRUNEWALD, R.	1259
GRUVERMAN, I.J.	652 699 1124
GUAZZONI, P.	1046
GUCZI, L.	664

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GUEBEN, G.	203
GUINN, V.P.	183 205 444 568 569 592 659 716 733 846 934 935 1014 1034 1056 1327 1355 1451 1482 1488 1508 1620 1649 1665 1868 2144 2348 2383 2517 2595 2598 2605 2607 2653 2782 2790 2791 2792 2939 2959 3028 3063 3072 3077 3486 3495 3498 3504 3505 4286 5979 6020 6025 6034
GUNNINK, R.	5587
GUNTHER, F.A.	2347
GUREEV, E.S.	3395 5857
GURFINKEL, Y.	609 840
GUSINSKII, G.M.	4197 5435
GUSTAFSON, P.F.	938 2552
GUTTMANN, S.	1020
GUZZI, G.	1573 1676 1729 1755 1779 1878 1919 2556 3082 3793 5421 5583
HAERDI, H.	1321
HAERDI, W.	356 690 906 915 940 1217 1397 1426 1535 1536 2481 2623 2626 3996 3997 4309
HAGGAG, A.	5369
HAHN, K.J.	2434 2445 3062
HAHN, P.B.	5699
HAHN, R.L.	153 201 1065 2259 2531 3071 4193
HAIGH, C.P.	206 207
HAJDUKOVIC, G.T.	1274
HALDAR, B.C.	677 2811 6086

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HALE, F.H.	908 1083
HALL, E.	1132
HALL, H.E., JR.	1683
HALL, J.D.	2504 5578
HALL, T.A.	208
HALLER, W.A.	6012 6058
HALVERSON, G.	910
HAMADA, K.	1929 5969
HAMADA, S.	2440
HAMAGUCHI, H.	209 211 410 571 572 575 585 776 778 779 820 922 1125 1127 1128 1154 1155 1174 1176 1307 1385 1693 2283 2340 3755
HAMAMOTO, K.	2440
HAMANN, W.	2813
HAMELIN, R.	1503
HAMMAR, L.	3965
HAMPTON, W.J.	946 2662
HAN, I.G.	2540 2772
HANDA, M.	604
HANDLEY, T.H.	1351
HAPP, W.W.	213
HARA, R.	947 1694 1908
HARDEN, R.M.	6047
HARMISON, L.T.	2662 2722 3475
HARRAP, V.	2576

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HARRIS, J.A.	1795 2559 2579 2688
HARRIS, W.F.	1589
HARRISON, A.	543
HARRISON, G.E.	214
HARTLEY, H.O.	2691 2706
HASHIMOTO, J.	211
HASHIMOTO, Y.	2672
HASHITANI, H.	2683
HASKIN, L.	728 1383 1474 1959
HASKIN, L.A.	909 5852 5939
HASKINS, J.	2124
HASSELTINE, E.H.	3788
HATTEMER, J.A.	194
HATUDA, Z.	1531 5328 5867
HAUMONT, S.	2633
HAVEN, G.T.	1972
HAVEN, M.C.	1975 3062
HAVENS, W.W., JR.	503 505 506
HAYASHI, S.	4240
HAYES, D.W.	4219
HAZLETON NUCLEAR SCIENCE CORPORATION	668
HEADRIDGE, J.B.	3336 5342
HEADY, H.H.	500 2498
HEALY, W.B.	2881 4232
HEATH, R.L.	2684

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HECHT, F.	813 982 1526 1564 2296
HECKER, A,B,H.	3105
HECKER, R.	1612
HEDGES, D.	2848
HEGEDUES, D.	1614 1832 2806
HEINEN, K,G,	3514
HEINTZ, P,H.	5733
HELBY, P.	943
HELLSTROM, S.	2604
HENDEL, H,W.	21
HENDERSON, P.	5406
HENITZ, P,A,	4283
HENKELMANN, R.	3986
HENNESSEN, J,A,	2124
HENNINGER, W,A.	1124
HENO, Y,	5520
HENRY, W,M,	69 1026 1951 2652
HERAK, M,J,	1581
HERFORTH, L,	1130
HERNEGGER, F,	143 217
HEROLD, C.	1193 1344
HERPERS, U,	5591
HERR, W.	100 218 219 222 223 224 225 226 347 683 1345 1612 2644 5591 5592
HERRMANN, G.	761
HERRMANN, R,	5988

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HERZOG, W.	100
HESLOP, J.A.B.	622 1312
HEVESY, G.	227 228
HEYDORN, K.	2696 3098 3099 3100 4314 5983
HEYMANN, D.	5262
HIGASHI, K.	1325 3773
HIGASHI, T.	5927
HIGH VOLTAGE ENGINEERING CORPORATION	647 1837 1838 1854
HIGHTOWER, D.	1452
HIGUCHI, H.	2340 3994
HILL, N.	1458
HILL, W.W.	678
HILTON, D.A.	1428 2846
HIMES, D.	5742
HIMMEL, L.	346
HINES, C.R.	4413
HINES, J.	2516
HINGORANI, S.B.	2977
HINOSHITA AND SUJI	1758
HIRANO, S.	424 754
HIRAOKA, T.	1929
HIRAYAMA, T.	1929 5969
HIROSE, Y.	403 2418 3033
HIRSCHFIELD, J.	557

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HISLOP, J.S.	3451 3790
HOEDE, D.	2838
HOFFMAN, C.M.	2648 4263 6021 6030 6036 6048
HOFFMANN, W.	2657
HOFFMEISTER, H.	2728
HOFFMEISTER, W.	226
HOFSTETTER, K.J.	5403
HOGDAHL, O.T.	1335 1641 1945 3482 5559 5873
HOLLAND, W.D.	692 1584 1655
HOLLAND, W.W.	1478
HOLLANDER, J.M.	1795 2559 2579 2688 4280
HOLM-HANSEN, O.	160
HOLM, D.M.	1604 2949 3970 3977 5417 5752 5769
HOLMES, T.H.	550
HOLT, J.B.	346 1483
HOLTZMAN, R.B.	1439
HOLZL, J.	1534
HONDA, Y.	5926
HONJO, T.	5776
HOOD, D.W.	273 422 586 2848 4219 4255
HOOTON, R.W.	1951
HOPKINSON, E.C.	996
HORI, R.	1395 2973 3769
HORIGUCHI, Y.	3773

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HORN, M.K.	2107
HORNNES, N.	405
HORNSBY, J.B.	2433
HORWOOD, J.L.	213
HOSOHARA, K.	211 571 572 1127 1385
HOSTE, J.	87 229 304 305 306 552 581 687 691 886 893 950 1064 1066 1085 1119 1211 1221 1388 1425 1500 1707 1735 1827 1841 1969 2430 2431 2497 2515 2610 2612 2613 2643 2715 3411 3485 3993 4254 5349 5363 5364 5381 5385 5398 5447 5730 5772 5940 5961 5962 5963 5964 6043
HOSTE, J.J.	5808
HOUSTON, C.D.	2202 3070
HOUTMAN, J.P.W.	1822 2562 2755 6013 6019 6061
HOWARD, P.K.	1917
HOWIE, R.A.	1977
HOYTE, A.F.	2720
HSIA, R.C.H.	1108
HSIEH, S.	5717
HSU, K.	1687
HSU, P-L.	5437
HUANG, H-M.	5437
HUARINGA, M.	230
HUBNER, U.	649
HUDGENS, J.E., JR.	231 232 233 234 617 1357
HUGHES, D.J.	746

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HUGHES, J.D.H.	5932
HUGHES, T.C.	1222
HUIZENGA, J.R.	39 40 41 42 146 1076
HUKAI, Y.	1398
HULL, D.E.	696 1258 1670 1738
HULL, R.L.	3355
HUME, D.N.	71
HUMMEL, R.L.	1737
HUMMEL, R.W.	235 236
HUNT, L.H.	1979
HUNT, L.P.	1803 5347
HURE, J.	38
HUTCHIN, W.H.	719
HUTCHINSON, W.P.	237
HYODO, H.	3341
IBERT, E.	1033 1058 1712 1721 1912
IDDINGS, F.A.	348 1437 2518 2519
IDENO, E.	779 1155 1693
IKEDA, N.	2800
IKEDA, S.	805
IKEMOTO, S.	5927
IKEYA, M.	2804
ILIFF, T.L.	2664
ILLSLEY, C.T.	2549

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IMAI, S.	5924
IMAI, T.	1079
IMOTO, M.	5872
INOUE, Y.	193
INTERNATIONAL ATOMIC ENERGY COMMISSION	76
IONOV, V.P.	1227
IREDALE, P.	238 1136
IRVING, G.	742
IRVING, H.	239 240 478 526
ISAEVA, E.A.	869 1223
ISENHOURL, T.L.	1580 1984 1985 2514 3741 4397 5733 6046
ISHIBASHI, N.	1514
ISHIDA, K.	1391 3414
ISHIHARA, M.	1723
ISHII, D.	403 1510 2418 3033
ISHIMORI, T.	1019
ISLAMOV, T.	5857
ISOTOPES	1405
ISOTOPICS	582
ISRAEL ATOMIC ENERGY COMMISSION	2603
ISSEROW, S.	58
ISTVAN, P.	1695
ITANI, M.	4302

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IVANOV, L.I.,	2660
IVANOVA, V.F.,	905
IWAI, M.,	5386
IWASAKA, T.,	5872
IWASHIMA, K.,	999
IWASHITA, F.,	5425
IYA, V.K.,	2473
JACOBSON, A.,	938
JACOBSON, E.C.,	303 2480 2496
JAKOVLEV, J.V.,	241
JAKOVLEV, T.U.V.,	3732
JAKOWLEW, J.W.,	902 1203
JAKUBOWITSCH, A.L.	1885
JAMES, J.A.,	242 243 244 245 246 583
JAMES, L.R.,	1041
JAMIN-CHANGEART, F.	1621
JANCZYSZYN, J.,	3335
JANKE, J.,	1704
JANDT, P.,	5765
JASKOLSKA, H.,	210 248 249 1133 1135 2444
JEFFERY, P.G.,	1677 1961 3948
JENKINS, E.N.,	250 251
JERCHEL, D.,	437 438
JEROME, D.Y.,	5718

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JERVIS, R.E.	252 325 326 349 584 706 726 970 1736 1737 2143 2548 2666 5981 6018 6041
JESSEN, P.L.	316 324 1956
JESTER, W.A.	4285 5510
JEWETT, G.L.	1803 2480 2496
JIMENEZ, A.T.	1464
JIMENEZ, P.	1809 1912 2707
JIRLOW, K.	1910 5860
JOHANSEN, O.	50 2739 3079 3961 4195 5713
JOHNSON, D.G.	3960
JOHNSON, F.F.	1680
JOHNSON, G.F.	1041
JOHNSON, J.F.	860
JOHNSON, P.	2969
JOHNSON, R.G.	45 46 49
JOHNSON, R.A.	732 1355 1627 2252 3809
JOHNSTON, W.H.	632
JOLY, M.	1105
JONA, F.	881
JONES, L.V.	1609 1637 2591 2596
JONES, R.E.	274 275 1956
JONES, W.T.	2433
JORDAN, E.D.	1336 1337 1423
JOWANOVITZ, L.S.	727 907
JOZEFOWICZ, K.	923

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JULIANO, J.O.	630 1782 2963 4215 5551
JULIANO, P.O.	5551
JUNKINS, R.L.	3748
JUNOD, E.	1705 1819 2557 2587
JURS, P.C.	4397
KAHNG, M.W.	738
KAINDL, K.	1703 3360
KAPOV, R.L.	1430
KAISER, D.	811 844
KAISER, D.G.	254 1001 1314 1692
KALICHEVA, I.S.	1493 2474
KALININ, A.I.	799 870 2523 3383
KAMADA, H.	2711
KAMAN NUCLEAR	658 2576
KAMATA, S.	1514
KAMATH, P.R.	2984
KAMEDA, K.	757 1257
KAMEMOTO, Y.	215 604 608 774 775 776 777 945 956 957 992 994 995 997 998 1003 1004 1009 1139 1140 1176 1200 1261 1272 1299 1300 1349 1374 1403 1409 1413 1418 1420 1491 1497 1533 1631 1682 1693
KAMINISHI, T.	631
KANABROCKI, E.L.	1141 2125 2535 3710
KANIJ, J.B.W.	2755
KANT, A.	255

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KANTOR, S.A.	3462
KAPLAN, E.	938 1141 2125 2535 3710
KAPLAN, E.P.	1218
KAPLAN, L.	256
KAPLAN, S.A.	6010
KARALOVA, Z.K.	4391
KARASEV, B.V.	904 1062 1393
KARK, R.M.	1311
KARLICEK, V.	5774
KARLIK, R.	1821
KARPUKHIN, O.A.	2564 3751
KARTASHEV, E.R.	5317
KASYMOV, A.K.	5621
KATAKURA, Y.	5393
KATO, H.	516
KATO, P.H.	15
KATO, R.	4240
KATO, T.	1402 1481 1765 2744 5308 5311 5379 5868
KAURANEN, P.	1630
KAWABUCHI, K.	1125 1385 3414
KAWAI, H.	5926
KAWAI, K.	2804
KAWAI, M.	1307
KAWASHIMA, T.	585 602 1142 1208 2502 2920 3770

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KE, C.H.,	531 1096 1131
KEAYS, R.R.,	5717
KEENAN, C.W.,	1351
KEENAN, R.G.,	2939 2937
KEEPIN, G.R.,	3841
KEHLER, P.,	961
KEIMATSU, S.	2711
KEISCH, B.,	1326 2546
KELEN, E.	1617
KELLER, R.A.,	2680
KELLERSHOHN, C.,	570 882 1105 1143 1278 3745 5998
KELLEY, W.D.,	952
KEMP, D.M.,	257 587 1145
KEMPCHINSKY, P.C.	3073
KENNA, B.T.,	1051 1112 1946 2568 4228 4274 6062
KENNA, L.A.,	1051
KENNEDY, J.H.,	944 2938
KENNEDY, J.W.,	1777
KENNINGTON, G.S.,	2756 4281
KENT, R.A.R.,	1
KERNFORSCHUNGSAVLAGE, JULICH, WEST GERMANY	5362
KERR, M.F.,	706
KERRIGAN, F.J.,	3776
KERTESZ, L.,	4190 5945

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KERWICK, W.	1590
KESSLER, W.V.	4329
KETELLE, B.H.	258
KEYNES, R.D.	259
KHAIDAROV, A.A.	924 1162 1550 1551 1553 1554 1555 1550 1557 1585 3362 3385 5857
KHAKIMOV, M.	5021
KHALIFA, K.	5729
KHAN, A.A.	2984
KHARABADZE, N.F.	3757
KHOLIN, A.I.	1559
KHRISTIANOV, V.K.	904 1062 1393 2303
KHUDAIBERGANDOV, A.	3369 3370 3371 3760
KHUSNUTDINOV, R.I.	2979 3472 3473
KIBA, T.	4311
KIENBERGER, C.A.	261
KIENLE, P.	862
KIESL, W.	982 1264 1273 1526 1564 2296 2601 2950 4268
KIGOSHI, K.	411 1212 1401
KILlick, R.A.	221 262 363 364 365 366 601 792 1146 1147 1182 1183 1184 3530
KIM, C.K.	655 740 953 1137 1201 2551 3342 6080
KIM, C-K.	3344
KIM, J.I.	1749 1909 2610 2612 2613 3342 3713
KIM, Y-S.	4296
KIMBERLIN, J.	3476

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KIMURA, K.	916 5926
KIMURA, Y.	5926
KINBARA, A.	1496
KING, E.R.	156 487 488 489 730
KING, R.W.	3027
KINSEY, R.J.	1590
KINSLEY, M.	1860
KIRCHMANN, R.	459 1484 2773
KIRCHNER, J.F.	1586
KIRK, P.L.	1149 6026
KIRNOZOV, F.F.	905
KIRYANOV, G.I.	2561
KISHITANI, M.	4240
KISS, I.	664
KIST, A.A.	1207 1548 1769 3388 3395 3736
KJELBERG, A.	2754
KJELLIN, K.	1287
KJELLIN, K.G.	1421 6009
KLAUS, E.E.	4285 5510
KLECKOVA, E.	1588
KLINE, J.R.	2552 3005 3345
KLOPFER, E.	1602 2761
KLUGER, F.	2296
KNOLLE, K.	4289
KNOTEK, O.	1610

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KNOWLES, F.E., JR.	1982
KNOX, R.J.	5384
NUDSON, A.R.	5543
KNUTSON, R.A.	555
KO, W.H.	4347
KOBALADZE, M.G.	1329
KOBAYASHI, A.	5327
KOBAYASHI, M.	756 806 1325 1338 1468 1469 1700 3771 3773 5749 5920
KOBAYASHI, M.	6045
KOCH, B.	1848
KOCH, H.	1130 1633 1848 2723 2724 2725
KOCH, H.J., JR.	263
KOCH, R.C.	588 643 676 705 1326 2546
KOCHEROV, N.P.	3394
KODOCHIGOV, P.N.	1227 2306
KOEHLER, W.	1958
KOGA, T.	5926
KOHLER, W.	2625
KOHMAN, T.P.	3934
KOHN-ABREST, M.E.	3726
KOHN, A.	264 265 266 896 1339 1473 1503
KOHN, H.W.	267
KOHN, R.E.	1590 1591
KOJIMA, C.	631

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KOLAR, R.D.	1785
KOLCHINA, A.G.	978
KOLESOV, G.M.	1493 2474
KOLOMIITSEV, M.A.	2957
KONDO, M.	5872
KONDO, Y.	2800
KONIG, H.	142 143 268 269 529
KONISHI, J.	2440
KONO, T.	4240
KOPINECK, H-J.	2615
KOPP, E.	5592
KORBEL, K.	3335
KORNBERG, H.A.	2738 2971
KOROBKO, M.I.	4196
KOROBOV, S.S	904
KOROTKOVA, V.A.	1049
KORTHOVEN, P.J.M.	5740
KOSHIMIZU, Y.	5327
KOSTA, L.	2882
KOSTER-PFLUGMACHER, A.	2678
KOTELNIKOV, G.A.	6053 6072
KOTT, J.	5774
KOVACINA, T.A.	1568
KOWALSKI, B.R.	6046
KOYAMA, M.	5919

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KOZHEVNIKOV, D.A.	5554
KOZIOROWSKI, J.	5952
KOZMINSKA, D.	1242
KOZUKA, H.	112
KRAMER, H.H.	1150 1334 1340 1790 2382 2662 2676 2690 2789 5953
KRAMER, J.	2779
KRANER, H.W.	2694 2762
KRATOCHVILLOVA- TALPOVA, H.	1948
KRAUCH, H.	684
KRAUSS, O.	6069
KREIENBUHL, L.	1159
KRISHNAMOORTHY IYER, R.	1596 1903 2602
KRISHNAN, S.S.	3062 5750 6035
KRIVANEK, M.	2358 3396 4306 5984 6024
KRIVIT, W.	657 1799
KRIVOKHATSKII, A.S.	5318
KROBER, M.S.	2969
KRUGER, P.	652 699 2554
KRYLOV, R.E.	3362
KUBOTA, M.	2464
KUCHAVA, N.E.	3757
KUDINOV, B.S.	5782
KUDO, K.	1018 2887 4298 5753 5922 5928

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KUEHNE, F.J.	3075 5383
KUKHARENKO, N.I.	1430
KUKULA, A.F.	1519
KUKULA, F.	2358 2878 3396 3975 4306 5335 5984 6024
KULAK, A.I.	270 544 545 662
KUNO, H.	2437
KUPER, A.B.	4347
KURIYAMA, S.	5922
KUROCHKIN, S.S.	1358
KURODA, P.K.	5716
KURODA, R.	571 572 575 820 922 1127 1128 1385 2283 3414
KUROSAWA, R.	1320 1672
KUROSU, H.	1338
KUSAKA, Y.	271 272 589 628 827 1111 1152 1202 1267 1315 1656 1879 3764 5566 5924
KUSCH, W.	621 1859
KUTSEV, V.S.	75
KUVIK, V.	1974 5426
KUYKENDALL, W.E.	273 590 1359 3461
KUYPER, E.	107
KUZMINSKII, A.S.	3729
KUZNETSOV, K.F.	2750
KUZNETSOV, R.A.	870 2523 3383
KUZNETSOVA, G.A.	2717

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KUZNETSOVA, R.A. 799  
KWIĘCINSKI, S. 2934 3335  
  
LACONI, A. 2964  
LAHAIE, G. 1890  
LAING, K.M. 274 275  
LAJOS, V. 1695  
LAKSHMANAN, S. 738 2141 2665 2722 5407 5743 5747  
LAM, C.F. 2529 2704  
LAMB, J.F. 2688 5768  
LAMM, A. 1503  
LANDRY, J.W. 3074  
LANDSTROM, O. 2852 3808 5771 5785  
LANFRANCO, G. 5344 5345  
LANG, W. 5988  
LANGEROVA, I. 1660 3334  
LANGHAM, W.H. 4227  
LANGHENRICH, W. 887 888  
LANGHOFF, J. 226 1345  
LARANJEIRA, M. 37  
LAROCHE, G. 1470  
LARRABEE, G.B. 2376 3514  
LARSON, Q.V. 72  
LARSON, R.E. 1606  
LASCH, J.E. 439 1356 1424

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LAUTTMAN, R.G.	21
LAVERLOCHERE, J.	637 789 833 834 835 836 853 872 890 901 1045 1046 1165 1360 1667 1706 1759 1819 1983 2557 5444 5593
LAVERTY, A.	3073
LAVRUKHINA, A.K.	1441 1493 2474 3754 5759
LAWRENCE RADIATION LABORATORY	2801
LAWSON, D.	2525
LAZZARINI, E.	1415
LBOV, A.A.	591 784 921 1007
LE HERICY, J.	1378
LE POEC, C.	570 2558
LE STRAT, J.	5444
LEAFER, M.A.	5751
LEAVITT, W.Z.	446
LEBOEUF, M.B.	509 2599 3117
LECHTMAN, H.N.	1834
LECLERC, P.	1503
LEDDICOTTE, G.W.	43 54 55 56 79 80 81 82 83 277 278 279 280 281 282 283 286 287 288 289 290 291 292 293 294 295 296 297 298 300 329 640 641 654 685 722 735 763 819 859 946 963 964 973 974 981 1031 1035 1039 1060 1088 1189 1190 1268 1316 1350 1351 1361 1476 1635 1638 1674 1709 1725 1727 1728 1746 1796 2931 3483 6028 6051
LEE, C.	2888
LEE, C-J.	3344

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LEE, D.M.	5768
LEE, H.M.	5941
LEE, M.B.	1033
LEE, N.D.	1351
LEE, N.K.	5323
LEE, S.	786
LEE, W.	931
LEE, Y.H.	5323
LEE, Y.Y.	5991
LEHMAN, R.L.	1495
LEIBETSEDER, J.	5994
LEIMDORFF, M.	5261
LEIPUNSKAYA, D.I.	301 1430 1445 1558 2617 2750 3366 3368 3402
LELIAERT, G.	302 303 304 305 306 689 866 880 893 986 1150 1234
LEMBERG, I.H.	5435
LEMBERG, I.K.	4197
LEMBERT, I.K.	149
LENCHENKO, V.M.	1561
LENIHAN, J.M.A.	134 307 308 309 310 406 593 638 1461 1069 2581 2719 2943 2985 3477 3490 3503 3512 3745 5847 6027
LEONARD, B.H. JR.	4251
LEONHARDT, W.	655 1157 1158 1343 1344
LEONHARDT, W.G.	1075
LEPETIT, H.	2802 4260

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LEPOEC, C.	1105 1143 1824
LERCH, P.	197 1159
LESBATS, A.	2550
LEUSHKINA, G.V.	2385 3384
LEVENTHAL, L.	1478
LEVEQUE, M.P.	311
LEVEQUE, P.	38 104 312 313 332 756 1503
LEVI, H.	227 228
LEVINE, A.S.	2546
LEVINE, C.A.	1160
LEVY, H.B.	5587
LEWIS, J.E.	399 979
LEWIS, J.N.	52 53
LEWIS, M.N.	491
LEWIS, P.R.	259
LEY, J.	1779
LIFBERMAN, K.W.	2991 5775
LIESER, K.H.	3105 5422
LIGHTOWLERS, E.C.	1161 1269
LIHL, F.	3418 4308
LIMA, F.W.	1650 2904 2930 5358 5850 5851 6039
LIN, C.Y.	1096 1131
LIN, S.C.	5323
LINACRE, J.K.	1053
LINDNER, M.	828

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LINEKIN, D.M.	5977
LING, S.M.	6010
LINN, T.A., JR.	5958 6050
LINNENBOM, V.J.	315
LINSTEDT, K.D.	2554
LIVINGOOD, J.J.	443
LIVINGSTON, H.D.	1980 2573 3982 4267 6003
LJUNGGREN, K.	317 318 562 573 594 682 791 1651 2563
LLOYD, K.W.	4322
LOBANOV, E.M.	924 1162 1207 1546 1547 1548 1549 1550 1551 1553 1554 1555 1556 1557 1561 1585 1769 2385 2979 3088 3089 3361 3362 3369 3370 3371 3372 3384 3385 3386 3388 3395 3464 3472 3473 3736 3700 3766 4262 5320 5581 5705 5706 5707 5857
LOCKHART, L.B.	1123
LOEILLOT, A.	815 879
LOEPFE, E.	2481 3989 4309 5942
LOEUILLET, M.	1263
LOGERQUIST, B.A.	1572
LOMBARD, S.M.	5733
LOMER, P.D.	1701 2527
LONG, J.V.P.	319
LOOS, R.	848
LOPOVOK, T.A.	1440
LORIA, G.	759

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LOVE, D,L. 634 3333 5376  
LOVERIDGE, B,A. 177 320 467 595  
LOVERING, J,F. 656 1180 1494 1498 1502 3774 5719  
LOVETT, J,E. 321  
LOWE, L,F. 322  
LOWENHAUPT, E,H. 4226  
LOWMAN, F,G. 1970 5387  
LOWMAN, J,T. 657 1799  
LUDWIG, T,G. 4232  
LUKAC, P. 5859  
LUKENS, H,R., JR. 323 507 599 659 861 1014 1163 1327 1424  
1537 1620 1900 1947 2144 2251 2272 2350  
2553 2595 2598 2663 2696 3028 3072 3100  
3101 4284 4314 5694 5979  
LUNDBERG, M. 741 968 1512  
LUNDE, G. 1205 2739 6023 6052  
LUNDEN, A. 100  
LUNDGREN, F,A. 1864  
LUNDGREN, S. 919  
LUSHBAUGH, C,C. 2422  
LUSSIE, W,G., 2530  
LUSTINEC, J. 2748  
LUTZ, G,J. 1560 4224

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LUX, F.	852 1525 2625 3988
LYKINS, J.H.	327
LYON, W.S., JR.	735 1635 1642 1643 1847 1935 2600 2673 2682 5710 5974
LYOYD, K.W.	4321
MAC KENZIE, J.K.	2251 2350
MACGREGOR, M.H.	917
MACKINTOSH, W.D.	252 325 326 349 416 706 726 920 970
MACKLIN, R.L.	327
MADDOCK, R.S.	345 1164 1698 1733
MADIGAN, S.B.	2782
MADIGAN, S.C.	2790
MAEDA, S.	1338 3771 3773
MAEDA, T.	4207
MAES, K.	1828
MAGGIORE, Q.	6008
MAGNO, P.J.	1982
MAGRO, G.	5999
MAHLMAN, H.A.	80 289 329 1088
MAHONY, J.D.	105 1318 1599 1831
MAK, B.K.	3783
MAKASHEVA, I.E.	149 869 1166 1223
MALABY, K.L.	2480 2496
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1455 1456 1965 2970 3957 4201 5999  
6008  
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MANNEY, T.R. 1078 1470  
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MAPPER, D. 468 469 470 471 472 473 597 626 750  
1168 1222 1275 1429 4253  
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MARKOWITZ, S.S. 1318 1599 1831 5768  
MARMIER, P. 1091 1668 1776  
MARTIN, D.S., JR. 727 907  
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MARTIN, G.E. 6048  
MARTIN, J. 174 1118 1839  
MARTIN, T.C. 113 314 1414 1798 2410 2504 2505  
3076 3753 3794 4005 5578  
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MAXIA, V. 331 1260 1644 3060 3954 3955  
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1369 1818 2327 2865  
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MC FARLING, J.L. 1586  
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MC KAY, H.A.C.	336
MC KIBBEN, J.M.	573 0056
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MC MASTER, C.H.	3785
MC MILLAN, J.W.	1434
MC MURRAY, C.S., JR.	1871
MC NAMARA, J.	6068
MC NATT, F.B.	907
MC PHERSON, D.	673
MECH, J.	1230
MEINKE, W.W.	130 164 165 254 337 338 339 340 341 342 343 344 345 350 409 666 697 712 720 731 765 914 953 1001 1047 1054 1120 1164 1172 1201 1228 1630 1657 1692 1698 1733 1810 1867 2317 2551 3553 5973
MELCHIORF, J.J.	3027
MELFI, F.	2964
MELLET, M.	892
MELONI, S.	1260 1644 3955
MELSON, S.	3482
MENAPACE, L.M.	5698
MENGER, J.W.	5996
MENIS, O.	706
MENON, M.P.	546 1978 2365 2520 3064 3797 4200 5975
MERCER, W.A.	1915

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MERLINI, M.	1277 1781 2901 6016
MERRFITT, D.J.	1658 1661
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MERZ, E.	222 225 347 1173 1381 1522
MESHRI, D.T.	677
MESLER, R.B.	918
MESTER, Z.	4216 5326
METCALF, A.	1394 2507 2622
METVEEV, V.V.	3751
METZGER, A.E.	253 1052 1284
MEYER, R.A.	2972
MEYER, R.C.	233 737
MEYER, R.E.	624 1060
MEZHIBORSKAYA, K.B.	1175 1270 1435
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MICHUN, R.	3725
MIDGETT, M.R.	4412
MIFTTINEN, J.K.	3735
MIGNON SIN, E.P.	1471 2550
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MIHARA, T.	1700
MIKHAILOVA, G.N.	3729
MIKHEEVA, L.M.	1177
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MINAEV, V.M. 2764  
MINCZEWSKI, J. 210 249 1133 1135 1255 1949 2444  
2932 3091 5697 5863 6054  
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MIYAKAWA, Y,	1272
MIYAKE, T,	2440
MIYOSHI, K,	426 1067 1399 1656 2297 2649
MIZUGUCHI, H,	2297
MIZUIKE, A,	424 754
MOAURO, A,	2795 5766
MOAV, B,	1645 2821
MOCHIZUKI, Y,	585
MOELLER, D.W,	55 56 290 963
MOGILYOVKIN, V,	773 1762
MOISEEV, V.V,	799 870 2523 3383
MOKHIR, E.P,	4275
MOKI, T,	607
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MOLJK, A,	354
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MOLLE, E.D,	6010
MOLLER, E.	4000 5177 5238
MOLOKHIA, M.M,	1977 5944
MONAGHAN, R,	961 996
MONGAN, D.M,	1722
MONNIER, D,	355 356 690 906 915 940 1217 1313 1321 1341 1396 1426 1535 2481 2623 3989 3996 3997 4309 5942
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MOORE, C.B.	5958 6050
MOORE, F.L.	822
MORGAN, D.J.	2981
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MORGAN, I.L.	113 596 1414 2254 2410 2504 2505 2686 3070 3076 3753 3794 3976 4005 5578
MORGAN, J.W.	469 595 656 1180 1431 1494 1498 1502 5/19
MORGAN, W.R.	693
MORI, H.	357 403 2418 3033
MORI, T.	2440
MORISHIMA, H.	5926
MORITA, R.	2440
MORRIS, D.F.C.	221 262 359 360 361 362 363 364 365 366 367 600 601 792 816 1146 1147 1182 1183 1184 1185 1458 1581 3481 3530
MORRISON, G.H.	116 117 368 369 370 371 1040 1289 1580 1775 1984 1985 2277 2514 5986
MORZEK, P.	1037 1193 1344
MOSEN, A.W.	439 1187 1356
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MOSULISHVILI, L.M. 3757  
MOTOJIMA, K. 2683  
MOTOZIMA, K. 419  
MOTT, W.E. 148 863 927 1213 1981 2512 3011 3752  
5709  
MOUND LABORATORY 5332  
MOUSTY, F. 4303  
MOZLEY, J.M. 1750  
MUDROVA, B. 4306 5335  
MUEHLHAUSE, C.O. 373  
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MULLER, G. 2627  
MULLER, J.H. 374  
MULLINS, W.T. 282 291 292 640 641 1044 1060 1188  
1189 1190 1268 1361 1709 1725 1727  
1796  
MULVEY, P.F., JR. 2972  
MUNDKOWSKY, W.F. 273  
MUNDSCHENK, H. 5546  
MUNZEL, H. 1826  
MUNZER, H. 3746  
MURIN, A.N. 799  
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MURRENHOFF, A.	433
MUSAELYAN, R.M.	5321 5782
MUSE, L.	422 586
MUSYL, I.	1521
MUTO, H.	426 1115 1115 1399 1656 2649 3719 3768 5380 5431 5432
MYRBERG, N.	6055
MYTTENAERE, C.	459
NADKARNI, R.A.	6086
NAGAHARA, T.	5927
NAGAI, I.	5308
NAGASAWA, H.	2437
NAGATSUKA, S.	1325 1469 3771 3773 5920
NAGY, L.G.	1005 1601 2806 4216 4217 5326 5399
NAKAGAWA, J.	2440
NAKAGAWA, T.	2440
NAKAI, T.	375 605 606 607 608 776 778 779 899 971 995 998 1038 1063 1154 1155 1174 1176, 1322 1654 1672 1679 1682 3714
NAKAJIMA, K.	5920
NAKAMURA, Y.	2464
NAKASA, H.	5967
NAKAYAMA, F.	1242 1342 1747
NAMIKAWA, Y.	827
NARGOLWALLA, S.S.	1864 2129 2280 2666 4392

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NARUSAWA, Y.	211
NASCUTIU, T.	511 1404 1774
NASS, H.W.	1698 1791 2789 5953
NATI, G.	383
NATIONAL ACADEMY OF SCIENCES-NATIONAL RESEARCH COUNCIL	3389 5526
NATO ADVANCED STUDY INSTITUTE	800 801 809 847
NATSUME, H.	806
NATUSME, H.	1681
NAUMOVA, I.I.	591 784 921 1007 2658 2661
NAVALKAR, M.P.	701
NEAL, T.E.	2511
NEDOSTUP, G.A.	1559 5577
NEEB, K.H.	2769
NEFEDOV, B.B.	1443
NEFEDOV, O.M.	1218
NEGINA, V.R.	871 1191 2369
NEIDER, R.	1380
NELLIGAN, W.B.	1680
NELP, W.B.	962
NELSON, L.C., JR.	234 377 958 1865
NENOV, N.	984 2923 5428
NETZEL, D.A.	1794 1888
NEUBURGER, M.	3991

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NEW BRUNSWICK LABORATORY, AEC	2987
NEWCOMB, J.C.	1789
NEWTON, D.	155
NEYRET, G.	1262
NGUYEN-LONG-DEN, M.	812
NICHIPORUK, W.	817
NICHOLS, L.L.	1
NICHOLSON, W.L.	1328
NICKEL, H.	2678
NIDAY, J.B.	5587
NIELSEN, J.M.	2738 2998
NIELSON, J.M.	2971
NIEMANN, E.	1192
NIESHE, S.	825 831 1193 1343 1344 2578
NIEWODENICZANSKI, J.	5950
NIKANOROV, G.S.	1554 1555
NIKANOROV, S.G.	1556
NIKOLAENKO, O.K.	5317 5780
NIKOLAEV, A.I.	3388 3736
NIKOLAEV, A.V.	5619
NILSSON, L.	5238
NIR, A.	1023 1811 2634 3711
NISHI, T.	967
NISHIGAKI, S.	991 3092

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NISHIMURA, S.,	1531 5328 5867
NISHIWAKI, Y.,	5926
NISSFN, H.-U.,	1576
NITTO, M.,	1929
NIWASE, K.,	112
NIXON, G.S.,	378 675 2565 2572 2573 3506 6003
NIZET, G.,	2713
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NOMURA, S.,	1694
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NORMAN, J.C.,	5939
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NOTEA, A.,	1023
NOVIKOV, A.P.,	924 1555 1556 1557 3371
NOVOTNY, A.J.,	5746
NOWICKA-JANKOWSKA, T.	925 5862
NOZAKI, T.,	379 602 1151 1153 1194 1208 1408 1742 3995
NUCIFORA, G.,	3740 5448 5934
NUCLEAR APPLICATIONS CONFERENCE	1756
NUCLEAR CORPORATION OF AMERICA	380

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OBRINK, K.J.	930
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ODEBLAD, S.	384
OESTER, Y.T.	938 1141 2125 2535 3710
OFFORD, R.E.	3469
OGAWA, K.	960 1115 1116
OGBORN, R.E.	1041 5062
OHNO, H.	5967
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OKA, Y.	1402 1481 1765 2744 5308 5311 5379 5868

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OKADA, T.	967 2804
OKAR, S.	4221
OKUBO, T.	1144 1671
OKUO, T.	3995
OLDHAM, G.	5714 5757
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OLIVE, G.	1815 1896 1922 5409
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OLSON, N.T.	3788
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ONCESCU, M.	1416 1822
ONDREJCIN, R.S.	1607
ONO, M.	4240
ONO, R.	4240
ONODA, Y.	774 997 1261 1299 1300
ONOSOV, A.I.	5515 5517
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OOSAWA, M.	1391 2889
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ORANGE, J.M.	1981 2512
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ORLANDINI, K.A.	1863
ORLOV, Y.L.	2306
ORMONT, R.F.	75
ORMOS, G.	2807 3792
ORSONI, L.	151
ORVINI, E.	1595
OSADA, K.	5969
OSAKI, S.	4311
OSAWA, M.	572 585 4302
OSBORN, S.B.	155 6014
OSBORNE, J.F.	2376
OSHRY, H.I.	695
OSMOND, R.G.	391
OSTACHOWICZ, J.	3335 5952
OSTERLUNDH, C.G.	5433
OTSKI, T.	1446
OTWINOWSKI, W.	1203
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PANOV, G.I. 1393  
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PARKINSON, T.F.	959 966
PARR, R.M.	1310 1411 2698
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PARTHASARATHY, R.	1901 1960
PASCU, N.	5949
PASSELL, T.O.	423 482
PASZTOR, E.	1002 2761 6022
PASZTOR, L.C.	1950 2542 4413
PATE, B.D.	474 475 476
PATEK, P.	1492 2765 3418 4191 4293 4308 4406 5438 5930
PATROVSKY, V.	1582
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PAULY, J.	579 942 977 1042 1541 1573 1599 1676 1729 1755 1878 1952 2556 2836 2901 3082 3724 3793 3985 5421 5583 5987
PAXTON, G.D.	2565
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PECK, P.F.	1020 1028 1209 1210 1951 2429 2652 5372
PEETERMANS, A.	743
PEETERS, E.	1447 1466
PEIRSON, D.H.	393
PEISACH, M.	770 841 842 868 1302 2532 2618
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PFEIFER, V.	1273
PFREPPER, G.	2723 2724 2725 2767
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PHILLIPS, H.R.	2574
PICCIOTTO, E.	397
PICCOT, D.	1818 2327 2865
PICER, M.	5790
PICK, M.A.	5756
PICON, M.	5579
PIERCE, C.M.	1467
PIERCE, K.C.	316
PIERCE, T.B.	1026 1028 1209 1210 1951 2429 2652 3336 3979 4304 5342 5372
PIETRA, R.	790 1281 1952 2556 2794 2901
PIJCK, J.	1211 1707 1743 1744 1745 1748 1749 2805 2892 3713
PILLAY, K.K.S.	2145
PINDRUS, P.	13
PINK, H.	5350
PINKAS, V.	2586
PINKER, R.H.	183 1034 2959
PINTE, G.	1171 6071

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PIRIE, A.	484
PIRTLE, O.L., JR.	1030
PISA UNIVERSITY, ITALY	3408
PISKUNOV, L.I.	5513
PLAKSIN, I.N.	783 1280 3087 3373 3374 3375 3376 3379 3767 5325 5620 5778 5779 5854
PLAKSIN, M.A.	855
PLANTIN, L-O.	710 1276 2508
PLASHAKOVA, G.P.	6053
PLATZER, R.	2927
PLESHAKOVA, G.P.	6072
PLUMB, R.C.	398 399 400
POCZE, L.	2922
POINT, J.J.	401
POLESHCHUK, T.V.	3382
POLINSKY, P.D.	2123
POLLACK, L.R.	2692
PONITZ, W.	1916
POOLE, D.O.	2532
POPOV, C.P.	1754 2923 3739 5428
POPOV, H.	984
PORIES, W.J.	2124
PURRITT, R.	1845
PORTER, R.S.	800
POST, R.G.	5745

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POSTMA, F.W., JR. 1871  
POSTMUS, C., JR. 1230  
POTAPOVA, T.A. 3582  
POTAPYEV, V.V. 4242  
POTRATZ, H.A. 39 40 41 42  
POTTER, J.C. 954  
POTTIER, R. 4001  
POTZL, K. 5522  
POURADIER, J. 402  
POZYCHANYUK, V.F. 1550 1585 3385  
POZZI, G. 6016  
PRASIROVA, J. 2845  
PREISLER, E. 1829  
PRESNYAKOVA, M.A. 2369  
PRESSER, G. 2012  
PRETORIUS, R. 2618  
PRICE, H.J. 2549  
PRICKARTZ, R. 2323  
PRIEST, G.L. 3781 5339  
PRIEST, H.F. 3781 5339  
PRISTER, B. 773  
PRO, M.J. 763 1031 1077 1635 2647 2648 4263 6021  
6030 6036 6048  
PROCHAZKOVA, Z. 1963 1972 3393 3669 4213 4248  
PROKOPCHIK, V.I. 4276 5356

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PRONIN, V.A. 2640 3730 3731 5336 5619 5703 5787  
PRONMAN, I.M. 5321 5781 5782  
PROUZA, Z. 1186 1506 2387 5602 5848  
PRUD HOMME, J.T. 314 3753  
PRUSSIN, S.G. 1795 2559 2579 2688  
PURSER, P.R. 405  
PUTMAN, J.L. 407 2650  
PUTYATINA, N.D. 1558 3368  
PYZHOBIA, Z.I. 4391  
  
QUAIFE, M.A. 2434 2445 3062  
QUESSON, M. 57 1503  
QUITTNER, P. 3350 3413 3548 3550 3552 4231 5931  
QUIVY, R. 125  
QURESHI, I.H. 2006  
  
RAAEN, H.P. 2609 4316  
RABINOWICZ, E. 408  
RABOT, R. 1503  
RADAK, B. 1096  
RADIATION COUNTER 646  
LABORATORIES  
RADWAN, M. 1030 5966  
RADWAN, Z. 925 5862  
RAFAELOFF, R. 1071  
RAGAINI, R.C. 1953

## ACTIVATION ANALYSIS-AUTHORS

RAI, L.	2318
RAINOSEK, A.P.	3797
RAISIC, N.	1659 1696
RAKOVIC, M.	930 939 1186 1271 1282 1392 1506 1660 1662 1664 1751 1752 1948 1963 1972 2387 2681 2759 2921 2990 3334 3393 3669 3765 4213 4248 5602 5618 5848 5874
RAKOVSKII, E.E.	985
RALEIGH, H.D.	1365
RAMDOHR, H.F.	1521 1686
RAMOS, E.	1970
RANDLE, K.	5936
RANZ, I.	888
RAO, S.R.	2984
RAPPAPORT, R.	1463
RASMUSSEN, N.C.	216 1618 1787 1898 3059
RASSOUL, A.	1345
RATHBURN, D.W.	1794 1888
RAUSCH, H.	4153 5499 5793
RAUSCHER, H.E.	1976
RAYMOND, W.H.A.	214
REBA, R.C.	2585 6068
RECKE, W.	1830
REDDY, G.R.	1449 1639 2982
REED, D.	1428 2846
REED, G.L.V.	6081

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REED, G.W.	209 410 411 412 736 1212
REED, J.H.	665 713 1611 1783 1785 2364
REEDER, S.D.	482
REID, A.F.	413
REIFFEL, L.	414 1611 1366
REINHARDT, K.	1578 1931
REISER, W.	1567
REMBOULD, E.A.	1637
RENGAN, K.	1047
REULAND, R.J.	1283
REVEL, G.	2381 3721 5938 5954
REVENSKA-KOCTSYUK, B.	5966
REYNOLDS, L.M.	4329
REYNOLDS, S.A.	81 293 294 295 296 297 298 300 415 722 1044 1846
REZVANOV, R.A.	1445
RHODES, D.F.	1213
RHODES, J.R.	5764
RICCI, E.	201 416 701 1065 1499 1593 1936 1937 1938 1939 2259 2531 2682 3071 4193
RICHARDS, D.H.	242 243 244 245 246
RICQ, J.C.	1518 1538
RIEHL, N.	1252
RIEZLER, W.	417
RIGA, USSR	2675
RIMSKII-KORSAKOV, A.A.	5704

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RISON, M.H.	4273 5420
RISPALE, C.	889
RIVIERE, R.	1278 3745
ROB, C.G.	2124
ROBERTS, J.O.	321
ROBERTSON, D.E.	2500 4381
ROBERTSON, D.S.	2729
ROBERTSON, J.S.	4377
ROBERTSON, O.H.	90 725
ROBIN, G.	1600 5968
ROBINS, C.H., JR.	4287 6082
ROBINSON, B.P.	4412
ROBINSON, E.L.	4287 5744
ROBINSON, J.R.	954 976
ROBSON, A.	1368
ROCCO, G.G.	2541 5474
ROCHAS, P.	1503
RODDEN, C.J.	420
RODERBOURG, J.	1484 2773
RODRIGUEZ, G.D.	1464
RODRIQUEZ MAYQUEZ, E.	2968
ROEDDER, E.	1107
ROELS, J.	2033
ROESMER, J.	588 676 705
ROGERS, G.T.	5932

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ROGUSHIN, I.I.	2750
ROHNSCH, W.	1520 1603 1628
ROJAS, M.A.	2685
ROLLIER, M.A.	1260 1644 3060 3954 3955
ROMANOV, M.M.	924 1162 1551 1553 3362
ROMANOV, O.M.	1162 1554
ROMMEL, H.	1013 1193 1344 2712
ROMMEL, M.A.	2680
RONA, E.	421 422 586
ROOK, H.L.	1861 2777 6066
ROOTS, E.N.	273
ROPER, N.J.	1875
ROSA, U.	3957
ROSE, R.M.	1966
ROSENBAUM, H.S.	5408
ROSENBLUM, L.	3085
ROSENFIELD, I.	513
ROSS, A.M.	139
ROSS, D.A.	867
ROSS, H.H.	700 1932 1933 2682
ROSS, W.J.	1035 1226 1710 1711 1796 3074
ROSSI, M.L.	707
ROSSOUW, S.F.	4006
ROTARIU, G.J.	5709
ROTH, E.	2768

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ROTH, L.J.	2042
ROTTMANN, J.	2678
ROTTSCHAFER, J.M.	4410
ROUBAULT, M.	1308
ROUECHE, A.	1426
ROUTTI, J.T.	5971
ROWE, M.W.	5716
ROWLAND, F.S.	728 909
RUBIN, B.	989
RUBIN, S.	423
RUCH, R.R.	183 1034 2782 2790 2792 2793 2959 2978
RUDELLI, M.	802
RUF, H.	2844
RUNDO, J.	155 3078
RUSHBROOK, P.R.	1214
RUSHIZKY, G.W.	5357
RUSSELL, H.T.	3064
RUSSELL, I.J.	1084 1655
RUSSKAYA, E.I.	3379
RUST, R.H.	2552 3345
RUSTICHELLI, F.	4208
RUTHERFORD, H.A.	1073 1472 1583
RUTTINK, J.	1748 3708
RUZICKA, J.	795 1121 1243 1244 1291 1346 1575 1579 1587 1588 1820 1930 1974 2154 2845 3084

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RYABCHIKOV, D.I.	1285
RYABUKHIN, V.A.	544 662 1285
RYABUKHIN, Y.S.	5976
RYAN, V.A.	1576 4226
RYAN, W.P.	6038
RYBACH, L.	1576 1505
RYCHKOV, R.S.	1286 2717
RYGARD, J.	405 943
RYSKIN, G.Y.	425
RYTCHKOV, R.S.	544 662
SABBIONI, E.	1541 1598 1952 2794 2836 3724 3985 5987
SABINA, A.C.	4258
SABINE, T.M.	3783
SABO, E.	5759
SACCHETTI, N.	1406
SACHA, J.	6044
SAIFUTDINOVA, D.G.	1550 1585 3385
SAIRENJI, E.	1198 1446
SAISHO, H.	1232
SAITO, K.	1151 1194 1742
SAITO, N.	427 1198
SAITO, T.	5311 5379
SAITO, M.	1496
SAIZHW, F.I.	1885

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SAKAI, T.	1391
SAKAMOTO, A.	4374
SAKANOU, M.	1391 2889 4302
SALAITA, G.N.	1843
SALMIN, J.P.	1885
SALMIN, Y.P.	3387
SALMON, L.	155 239 428 429 430 431 432 477 3426
SAMOSADNYI, V.T.	2764
SAMSAHL, K.	442 714 829 830 1089 1134 1412 1766 1797 1892 1894 2403 2718 4004 5760 5771 5785
SAMSON, C.	1912
SAMUELSSON, E.-G.	4323 5382
SANAD, W.	4203 5729
SANCHEZ IZQUIERDO, J.	2968
SANDERS, F.W.	993
SANDERS, W.M.	1604 3970 3977 5417 5752 5769
SANDOR, J.	1005
SANDRU, P.	1822
SANFORD, W.R.	1048
SANGUIST, V.	1415
SANKAR DAS, M.	1109 1449 1596 1639 1901 1902 1903 1911 2602 2976
SANO, H.	1198
SANTELLI, D.J.	1801
SARDI, A.	5416

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SASAKI, E.	1446
SASAKI, M.	1402 1765
SASAKI, T.	1533
SASAKI, Y.	755
SASTRY, R.V.R.	5756
SATO, K.	858
SATO, M.	1115
SATO, R.	1780
SATO, Y.	5386 5928
SAUNKIN, O.F.	858
SAUTIN, A.	1957 4325
SAVEL, P.	911
SAVOSIN, S.I.	780 1430 2750
SAWAI, T.	1538 1468 3771 5921
SAYRE, E.V.	433 1032 1629 1834 1897 1926 2945 6031
SCHADE, H.	1091
SCHAUB, B.	3727
SCHEER, K.E.	6069
SCHERLE, W.	1010 1012
SCHIAVINI, G.	1095
SCHIERLING, H.E.	1536 1337 1423
SCHIFF, E.	4217
SCHILLING, J-G.	2763
SCHILTZ, J.C.	1454 1817

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SCHINDEWOLF, U. 434 435 436  
SCHIRJAJEWA, M.B. 1885  
SCHLEIFFFR, J-J. 2632  
SCHLESINGER, H.L. 2647 2648 4263 6021 6030 6036  
SCHMEISER, K. 437 438  
SCHMIDT-BLEEK, F. 5403  
SCHMIDT, D. 5440  
SCHMIED, H. 1760 1842  
SCHMITT, R.A. 439 613 648 932 933 944 1187 1251 1323  
1356 1384 1634 1708 2735 5343 5720  
5958 6010 6067  
SCHNEIDER, H. 1367  
SCHNEIDER, W. 1869  
SCHOLES, P.H. 5389  
SCHON, A. 1529  
SCHONFELD, E. 2450 2533 2545 4210 4326  
SCHONFELD, T. 394 440 694 749  
SCHONTAG, A. 1732  
SCHRADER, C.D. 1052  
SCHRAGE, E. 1381  
SCHRAMEL, P. 3746  
SCHROEDER, G.L. 1216 1953 2694 2762  
SCHUHL, C. 38  
SCHULERT, A.R. 1858  
SCHULTZ, W.W. 718 2571

## ACTIVATION ANALYSIS-AUTHORS

SCHULZE, W.,	441 627 711 898 1666 2513 2544 2566 3720 3978 5937
SCHUMANN, P.,	2335
SCHUSTER, E.,	5957
SCHUTZ, D.F.,	614 1027
SCHWARTZ, D.,	216
SCHWARZER, D.,	158
SCHWEIKERT, E.A.,	1375 2628 2629 6066
SCOTT, H.D.,	4380 5390
SCOTT, J.E.,	4263
SCOTT, W.L.,	5394
SEABORG, G.T.,	443
SERESTIAN, I.,	1363 1574
SEDLACEK, W.A.,	1576
SEGEL, R.E.,	862
SEINO, H.,	516
SEIRMARCO, J.A.,	881
SEITNER, H.,	2296
SELZ, J.	1217
SEN SARMA, R.N.,	15
SENFTLE, F.E.,	171 445 446 447 2720 4282
SENS, J.C.,	4209
SERVIAN, J.L.,	2148
SETSER, J.L.,	212 988 1022
SETTLE, D.M.,	2517 3077 3101 3486 5979 6020 6033

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SEVAST YANOV, Y.G.	1218
SEVIER, P,	5409
SEYFANG, A.P,	448 449 472 1347 1429
SHABANA, R,	2447 4319 5728 5729
SHAH, S.D,	617
SHAMAEV, V.I,	614 858 1215 1246 1247 3364
SHANKS, D.E,	2498 4214
SHARMA, H.D,	1902
SHARP, R.A,	439
SHATS, M.M,	490
SHAW, D.C,	5395
SHCHIOKAVA, T,	2674
SHCHULEPNIKOV, M.N.	1068 2721
SHEDLOVSKY, J.P,	148 927
SHEMAROV, F.V.	1764
SHENBERG, C,	4194
SHESTAKOV, B,I,	1430
SHIBA, K,	604 607 608 774 971 997 998 1038 1299 1300 1654 1682
SHIBAEVA, N.P,	4391
SHIBATA, H,	1650
SHIBUYA, M,	454 3714 5327 5725 5925
SHIDELER, R.W,	914 1054 2538
SHIGEMATSU, T,	1513 5776 5777
SHIKATA, E,	1398

## ACTIVATION ANALYSIS-AUTHORS

SHIMELEVICH, Y.S.	969 1430 2750 3462
SHIMIZU, T.	575 820 1127
SHIMP, N.F.	263
SHIMURA, K.	2649
SHINAGAWA, M.	2727
SHIPMAN, G.F.	451 .
SHIRAI SHI, H.	1382
SHIRYAEVA, M.B.	3387
SHKODA-ULYANOV, V.A.	4277 5319
SHMANENKOVA, G.I.	6053 6072
SHNEOUR, E.A.	839
SHORNIKOV, S.I.	1646 2965
SHORT, H.G.	452
SHTAN, A.S.	5317 5780
SHTASEL, A.	910
SHUMWAY, R.H.	1851
SICILIO, F.	936
SIEBERG, R.	3194
SIEMER, P.L.	1259
SILVA, C.M.	5358 5851
SILVANOVICH, Y.A.	5787
SILVERMAN, J.	636 740
SILVERMAN, R.H.	400
SIMKOVA, M.	1519 1545 2386 2878 3975
SIMNAD, M.T.	453

## ACTIVATION ANALYSIS-AUTHORS

SIMON, F.O.	5959
SIMON, L.	941 1219
SIMONITS, A.	4231
SIMPSON, G.	561
SIMPSON, H.	179 626 852 1220 1570
SINGH, J.	5571
SINGHAL, N.S.	3356
SION, H.	1221
SIPPEL, R.F.	455
SIPPEL, R.S.	1148
SIRONI, G.	1254
SJOBERG, H.E.	1400 1893
SJOSTRAND, B.	533 534 535 1100 1239 1288 2563
SKINNER, W.A.	5751
SKIPHEN, G.R.	2839
SKLAVENITIS, H.	6001
SKLAVENITIS, L.	5875
SKOUGSTAD, M.W.	2656
SKOVORODKIN, N.V.	5318
SLATER, D.N.	1185 3530 5742
SLEPCHENKO, I.F.	733
SLOAN, R.W.	1843
SLOTH, E.N.	1230
SLOTT, R.	3962
SLOWEY, J.F.	2848 4219 4255

## ACTIVATION ANALYSIS-AUTHORS

SLOWEY, J.F., JR.	4291
SLUNECKO, J.	1519 1545 2358 3975
SMAKHTIN, L.A.	985 3365
SMALFS, A.A.	26 27 94 96 236 240 251 257 320 353 391 449 456 457 458 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 525 587 595 615 616 724 745 1145 1222 1275 1429 2338 2528 3979 4253 4266 5411
SMATHERS, J.H.	2141 5407 5743
SMIRNOV-AVERIN, A.P.	1218
SMIRNOV, A.A.	5704
SMIRNOV, V.I.	2337
SMIRNOV, V.N.	479 1280 3767
SMIRNOV, V.V.	5704
SMIRNOVA, N.B.	2717
SMIT, J. VAN R.	239 240 478 526
SMITH, B.A.	1458
SMITH, E.M.	1750
SMITH, E.R.	263
SMITH, G.D.	3750
SMITH, G.W.	1/22 1801 2536 2537 4224 5985
SMITH, H.	154 309 310 378 481 565 651 675 788 1224 1225 1928 1977 1980 2565 2570 2572 2573 2719 2942 2958 2985 3507 3982 4267 5847 5944 6003 6042
SMITH, H.P., JR.	3788
SMITH, J.W.	125
SMITH, L.H.	2706 4199

## ACTIVATION ANALYSIS-AUTHORS

SMITH, R.H.	692 1525 1356 1634 5720 6010
SMITH, R.L., JR.	273
SMITH, R.R.	482
SMYTHE, L.E.	3968 6038
SOBATCHKIN, A.	773
SOCIETA RICERCHE IMPIANTI NUCLEARI	140
SOCIETE ANONYME DE MACHINES ELECTROSTATIQUES.	1619 1622
SOLBERG, D.E.	959
SOLTYS, M.N.	1289
SOLVSTEN, S.	1241
SOMMERKORN, G.	2615
SONDEL, J.A.	2145 3061 5502
SONNINO, T.	772
SORANTIN, H.	1264 1273 1487 1492 1564 1830 1840 2601 2766 2950 3418 4191 4293 4308 4406 5438 5930
SOREMARK, R.	714 741 829 830 968 1317 1332 1512 1800 3086 4002 6055
SOROIU, M.	1416 5295
SOROKINA, A.V.	5318
SOUBEYRAND, R.	1805
SOULE, J.L.	57
SOULIOTIS, A.G.	928 1057 1964 1971 2701 4272 5415
SOWDEN, E.M.	483 484 485

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SPADACCINO, E.	1260
SPAŁEK, J.	3811
SPEECKE, A.	1066 1828 2610 2643 5772 5808
SPENCER, R.P.	486 487 488 489 730
SPENGER, R.E.	2347
SPENKE, H.	1821
SPIKES, J.D.	3747
SPIRA, J.	4386
SPITSYN, V.I.	1227
SPRONK, N.	1925 5993
SRAPENYANTS, R.A.	1443
STALLWOOD, R.A.	863
STAMM, S.J.	4283
STANG, L.G., JR.	1873
STANLEY, C.W.	1794 1888
STARCIK, L.P.	479 783 855 1280 3087 3373 3374 3375 3376 3379 5325 5620 5778 5779 5854
STARCIK, M.P.	3167
STARFELT, N.	4000 5177 5238
STARIK, I.E.	490
STARIKOVA, N.A.	5435
STARK, H.	61 1292 1732 1829 2636 3987 5439
STARY, J.	1243 1244 1291 1346 1575 1579 1587 1588 1820 2154 3084
STEELE, E.L.	712 845 1058 1228 1567 1702 1712 1/21 1852 1900 1912 2510 2598 2734 2947 2948 3028 3353 3553

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STEEN, H.	2929
STEFANOV, G.I.	984 1754 2923 3739 5428
STEHLIK, G.	1370 1703 1767
STEIM, J.M.	1462 1479 1870 3716
STEIN, M.N.	21
STEINNES, E.	50 1768 2597 2739 2853 3079 3470 3961 4192 4195 4305 5366 5370 5405 5713 5731 5960 6074
STEJSKAL, R.	2878
STENSLAND, W.A.	1802
STEPHENS, W.E.	491
STERLINSKI, A.	5865
STERLINSKI, S.	902 1761 1884 2760 2989 4206 5341
STEVANCEVIC, D.B	1274
STEVANCEVIC, D.	1771
STEVENSON, P.C.	3380
STEVENSON, R.A.	2732
STEWART, D.C.	492
STIER, P.M.	1150 1340 2690
STIMSON, A.	3391 5390
STINISON, A.	4380
STITCH, S.R.	485
STOCKER, H-J.	2678
STOCKERT, H.	2769
STOENNER, R.W.	493
STOGOVA, G.B.	3374

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STOJANOVIC, N.	4267
STOKELY, J.R.	2157
STOLL, N.	5450 5451 5452
STONE, C.A.	185 414 665 1311 1611
STRAIN, H.H.	1265
STRAIN, J.E.	82 1208 1361 1638 1642 1796 1940 1941 2531 3058 3074 5711
STRAIN, W.H.	1788 2124
STRAUSE, B.M.	509
STRELOW, F.W.E.	1292
STRIBEL, T.	494
STRICKLAND, E.H.	975
STROHAL, P.	5790
STRUTHERS, J.D.	5402
STRZYZEWSKA, B.	5862
STUBBINS, M.	6004
STUDIER, M.H.	1230
STUHL, Z.	88
STUKENBROEKER, G.L.	52 53
SURBUTINA, T.I.	5356
SUDA, K.	2540
SUE, P.	8 495 496 497 498 499 1720
SUFFREDINI, C.S.	439
SUGISHITA, R.	575
SUGISITA, R.	1307

## ACTIVATION ANALYSIS-AUTHORS

SUITA, T.	2804
SUKHOV, G.V.	6053 6072
SULIN, V.V.	1646 2965 3462 5950
SUNDERMAN, D.N.	1586
SURKOV, Y.A.	1068
SURLS, J.P., JR.	1160
SUSLOW, V.G.	2965
SUTTON, A.	6002
SUZUKI, H.	5920
SUZUKI, I.	916
SUZUKI, K.	5925
SUZUKI, N.	1018
SUZUKI, T.	1446
SVENKE, E.	5423
SVENSSON, P.	5433
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YUTAKA, M.	1399
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## APPENDIX II

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## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## ACTINIUM

1439

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98	104	113	130	140	141	175	205	301	382	384	393	419	423
433	455	471	491	509	518	555	567	580	605	607	612	625	635
637	641	665	695	702	711	752	760	810	821	824	834	845	848
849	850	851	895	897	903	941	961	966	974	1097	1138	1140	
1161	1193	1213	1220	1226	1263	1334	1340	1386	1414	1414	1419		
1420	1442	1456	1460	1466	1471	1492	1558	1559	1611	1611	1616		
1642	1709	1710	1721	1725	1746	1785	1793	1794	1798	1813			
1857	1888	1889	1896	1897	1898	1912	1945	2144	2306	2498			
2499	2504	2507	2526	2550	2662	2689	2699	2751	2764	2766			
2931	2933	2940	2941	2956	3075	3355	3345	3369	3370	3384			
3461	3727	3753	3788	3790	3793	3976	4191	4193	4216	4231			
4232	4258	4286	4293	5326	5383	5384	5591	5727	5759	5957			
5970	5978	6056	6081										

## ANTIMONY

9	12	21	54	56	83	103	141	149	166	167	174	183	205	215
231	246	252	255	279	322	323	419	454	460	469	473	509	544	
572	581	606	614	619	625	649	662	674	688	702	704	735	760	
767	775	778	799	803	805	806	845	870	879	886	888	894	899	
927	942	945	950	977	992	997	1027	1030	1034	1063	1064			
1068	1089	1095	1118	1123	1124	1133	1134	1135	1138	1146				
1166	1174	1191	1193	1223	1226	1231	1245	1246	1254	1272				
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1693	1699	1700	1710	1715	1723	1732	1736	1737	1746	1766				
1797	1825	1848	1858	1894	1907	1920	1977	2144	2296	2308				
2369	2386	2403	2430	2464	2493	2523	2548	2550	2601	2612				
2639	2688	2689	2694	2699	2739	2766	2769	2776	2801	2819				
2852	2931	2938	2950	2999	3065	3352	3383	3418	3487	3514				
3723	3730	3732	3759	3785	3808	3949	3957	3988	4216	4232				
4253	4268	4286	4290	4293	4300	4308	4328	4329	4381	5326				
5344	5390	5399	5438	5499	5619	5725	5729	5750	5771	5785				
5787	5793	5936	5944	5960	5977	5981	5991	6003	6008	6012				
6037														

## ARGON

54	55	121	122	268	290	354	419	493	529	670	683	977	1004
1226	1345	1416	1539	1719	1891	1924	2731	3081	3483	4198			
4224	4278	5295	5449										



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## ARSENIC

4	5	22	54	55	56	103	116	124	134	140	141	149	154	165	166
167	172	174	189	193	194	198	205	215	242	245	246	248	255		
270	290	309	310	328	351	370	371	378	409	419	424	431	451		
465	469	473	474	475	476	481	502	504	509	541	544	551	565		
571	572	584	593	606	625	640	649	659	662	674	686	688	689		
702	704	704	706	707	758	760	767	775	778	799	802	804	805		
810	838	845	870	871	879	888	892	894	896	902	911	944	945		
970	985	992	997	1063	1064	1068	1069	1100	1118	1133	1134				
1135	1142	1146	1153	1166	1171	1174	1177	1191	1192	1193					
1223	1225	1245	1246	1272	1275	1288	1299	1300	1314	1344					
1354	1373	1412	1441	1442	1446	1469	1471	1473	1477	1533					
1542	1548	1588	1603	1613	1616	1617	1628	1648	1649	1665					
1672	1693	1699	1710	1725	1727	1728	1734	1737	1746	1749					
1760	1770	1797	1848	1862	1894	1907	1920	1928	1965	1976					
2296	2308	2333	2369	2403	2495	2497	2508	2523	2548	2550					
2570	2619	2638	2659	2640	2688	2689	2690	2699	2707	2717					
2719	2721	2769	2773	2776	2795	2801	2819	2852	2871	2926					
2942	2943	2954	2958	2999	3098	3350	3383	3483	3514	3713					
3725	3726	3730	3731	3748	3791	3808	3993	4232	4253	4268					
4269	4285	4319	5336	5344	5349	5358	5385	5415	5428	5438					
5499	5510	5619	5771	5785	5793	5851	5864	5926	5931	5944					
5983	5991	6003	6008	6023	6037	6039	6040	6052							

## BARIUM

54	55	56	67	68	183	189	209	214	217	290	326	423	483	484
485	504	588	614	631	635	676	686	688	704	705	708	723	760	
810	815	824	845	879	966	1014	1027	1034	1045	1086	1118			
1134	1150	1188	1190	1191	1193	1212	1226	1281	1334	1340				
1361	1412	1597	1670	1699	1710	1725	1727	1738	1797	1815				
1825	1890	1896	1920	1973	2308	2464	2474	2498	2523	2550				
2638	2639	2676	2689	2717	2776	2804	2819	2852	2965	2999				
3355	3383	3483	3775	3960	3988	4214	4263	5500	5619	5785				
5936	5977	5991	6002	6067										

## BERYLLIUM

169	170	184	185	201	380	383	455	479	554	669	855	908	978
983	1065	1081	1082	1083	1136	1160	1175	1178	1270	1280			
1435	1609	1637	1861	1871	2318	2777	3072	3767	4193	5522			
6056													



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## BISMUTH

103 141 146 166 167 255 411 419 509 688 697 760 879 894  
 1121 1124 1212 1354 1477 1613 1699 2550 3464 3793 5320  
 5344 5381 5398

## BORON

82 144 181 201 216 333 335 382 455 495 497 530 791 855  
 904 905 1013 1091 1280 1312 1393 1546 1547 1561 1618  
 1787 1821 1823 1985 2251 2298 2498 2661 2712 2987 3059  
 3126 3361 3376 3466 3767 3811 3962 3976 4193 4211 5332  
 5408 5429 5566 5756 5779 5854 5919 5932 5933 6056

## BROMINE

23 54 55 56 62 68 100 117 126 205 290 328 347 437 442  
 504 539 602 625 631 635 641 659 686 688 697 702 704 706  
 714 760 810 824 827 829 830 851 888 933 934 942 977  
 1012 1055 1072 1086 1096 1118 1134 1208 1226 1266 1412  
 1419 1433 1462 1472 1479 1480 1492 1514 1569 1572 1577  
 1606 1617 1633 1709 1710 1736 1737 1746 1797 1848 1870  
 1874 1920 1964 2308 2347 2403 2508 2509 2548 2550 2614  
 2619 2638 2639 2689 2693 2694 2717 2730 2766 2776 2819  
 2852 2871 2873 2991 2999 3059 3101 3360 3365 3483 3708  
 3716 3791 3808 4194 4214 4254 4285 4329 5370 5390 5397  
 5510 5714 5718 5749 5751 5771 5775 5785 5870 5920 5924  
 5925 5929 5948 5975 5977 5995 6001 6012 6017 6023 6037  
 6055 6058 6085

## CADMIUM

9 80 82 103 141 166 167 174 180 255 328 416 419 508 509  
 522 535 606 631 662 674 688 697 704 710 713 790 799 815  
 870 879 894 968 1006 1014 1042 1045 1063 1080 1088 1089  
 1113 1118 1123 1134 1150 1191 1240 1246 1277 1320 1332  
 1334 1340 1344 1354 1412 1441 1442 1469 1471 1472 1477  
 1478 1584 1603 1614 1634 1655 1699 1703 1709 1710 1725  
 1766 1797 1800 1832 1856 1920 2308 2369 2508 2523 2550  
 2639 2654 2676 2689 2718 2769 2776 2819 2852 2871 2999  
 3376 3382 3383 3808 3811 3949 3964 4214 4267 5307 5325  
 5345 5369 5619 5698 5703 5779 5785 5922 5944 5977 5991



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## CALCIUM

22	54	56	103	141	155	166	167	174	205	328	423	442	495
504	509	529	640	652	673	674	688	699	704	708	714	760	815
829	830	848	852	879	1045	1086	1087	1089	1118	1124	1134		
1159	1166	1193	1247	1281	1292	1354	1362	1371	1457	1466			
1559	1611	1699	1706	1709	1710	1726	1738	1766	1782	1797			
1800	1806	1818	1843	1857	1872	1917	1920	1975	2308	2323			
2422	2523	2550	2618	2638	2639	2687	2689	2737	2751	2776			
2789	2819	2852	2871	2945	2963	2999	3323	3793	4193	4258			
4329	5384	5386	5390	5771	5785	5981	6004	6010	6014	6044			
6067	6073	6081											

## CALIFORNIUM

822

## CARBON

4	8	29	45	46	49	105	113	118	119	201	351	401	417	423	455
497	498	578	623	637	688	703	704	744	767	811	814	913			
1026	1065	1219	1263	1312	1414	1560	1599	1604	1646	1778					
1798	1816	1823	1831	1837	1849	1889	1898	1951	2298	2495					
2504	2505	2550	2554	2652	2661	2933	2948	2949	2965	3070					
3077	3727	3753	3976	3977	4193	4209	4211	4226	4386	5238					
5442	5621	5769	5954	6004											

## CERIUM

103	115	141	267	439	546	588	676	688	704	705	767	824	896	
1042	1134	1226	1412	1710	1797	1835	1920	1945	1957	1978				
2308	2474	2498	2639	2689	2694	2776	2819	2836	2852	2945				
2999	3395	3766	3780	3949	5308	5369	5771	5785	5936					

## CESIUM

79	93	96	103	138	166	167	300	328	433	460	469	477	504	
588	614	676	688	705	790	810	815	879	999	1027	1042	1045		
1089	1134	1193	1222	1226	1265	1412	1449	1466	1477	1563				
1699	1710	1727	1736	1761	1766	1797	1812	1897	1920	1973				
2308	2508	2523	2548	2638	2639	2689	2776	2819	2852	2871				
2931	2989	2999	3375	3383	4310	4381	5341	5369	5500	5619				
5771	5785	5788	5934	5936	6012	6016	6037	6057						



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## CHLORINE

23	31	32	35	37	44	48	54	55	56	62	68	81	82	117	141	155
205	290	291	328	419	437	442	588	591	602	625	635	637	641			
652	676	686	686	691	699	702	704	705	714	732	760	777	824			
829	830	845	849	851	871	887	895	921	932	933	941	942	966			
977	992	1010	1061	1086	1138	1193	1200	1208	1217	1226						
1263	1266	1320	1331	1442	1456	1477	1492	1520	1539	1569						
1595	1617	1670	1689	1709	1710	1723	1725	1738	1746	1764						
1772	1819	1843	1874	1902	1913	1971	2141	2148	2347	2422						
2498	2508	2550	2614	2673	2689	2693	2701	2758	2766	2775						
2871	2873	2930	2965	2981	3101	3355	3360	3483	3708	3736						
3752	3778	3791	4191	4193	4195	4258	4285	4296	4299	4327						
5386	5390	5397	5510	5718	5721	5751	5924	5948	6011	6014						
6017	6055	6056	6063	6085												

## CHROMIUM

22	39	97	103	126	140	141	166	174	205	230	252	291	328			
371	419	433	460	469	482	508	509	614	625	637	640	641	667			
674	688	706	712	716	718	726	735	741	760	767	789	806	815			
879	888	920	942	977	985	987	989	1030	1042	1118	1124					
1134	1138	1165	1211	1226	1245	1247	1251	1254	1255	1263						
1275	1277	1293	1333	1349	1412	1434	1436	1442	1456	1471						
1472	1477	1492	1512	1564	1614	1649	1699	1707	1709	1710						
1717	1723	1725	1736	1737	1760	1786	1795	1797	1825	1832						
1833	1844	1856	1897	1920	1965	2296	2306	2308	2430	2473						
2498	2508	2523	2548	2559	2597	2601	2639	2654	2662	2673						
2689	2690	2717	2721	2735	2739	2753	2766	2769	2776	2819						
2846	2852	2870	2871	2882	2950	2999	3005	3383	3384	3470						
3723	3791	3957	3964	3988	4192	4216	4253	4310	5326	5343						
5350	5369	5390	5438	5448	5499	5500	5581	5619	5728	5771						
5785	5788	5808	5936	5941	5977	6013	6037									

## CUBALT

4	5	13	47	80	83	103	124	130	138	140	141	166	167	174	205	
246	252	254	263	270	328	352	356	390	419	428	433	460	462			
470	482	502	504	509	513	531	588	594	614	616	620	625	635			
637	641	662	667	674	676	688	697	704	705	717	724	726	729			
735	741	760	767	789	790	799	804	810	813	815	823	834	852			
870	879	883	892	906	915	920	940	941	942	977	994	1009				
1027	1042	1045	1088	1094	1095	1097	1098	1099	1118	1123						
1124	1129	1134	1138	1165	1167	1171	1172	1183	1190	1193						
1193	1204	1211	1226	1231	1247	1251	1254	1262	1263	1273						
1277	1293	1313	1321	1344	1349	1354	1371	1406	1411	1412						
1426	1434	1438	1441	1442	1443	1454	1456	1466	1471	1472						
1477	1492	1512	1515	1541	1564	1614	1644	1699	1707	1709						



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## COBALT (CONTINUED)

1710	1717	1723	1725	1727	1729	1741	1749	1760	1785	1797
1813	1817	1825	1827	1832	1833	1856	1860	1897	1920	1965
2036	2296	2306	2308	2430	2447	2495	2508	2523	2548	2550
2578	2601	2638	2639	2640	2654	2658	2689	2690	2707	2707
2717	2718	2723	2725	2735	2739	2744	2752	2766	2769	2776
2819	2846	2852	2870	2871	2876	2882	2931	2950	2957	2999
3005	3383	3388	3418	3470	3661	3713	3716	3730	3731	3740
3810	3955	3957	3964	4153	4153	4264	4295	4308	4315	4317
4328	4381	5336	5343	5345	5369	5438	5448	5510	5619	5697
5703	5728	5759	5771	5785	5788	5808	5936	5941	5955	5967
5977	5981	6012	6016	6037	6067					

## COPPER

5	6	7	12	22	54	55	56	63	68	78	81	83	102	103	116	130	138
140	141	149	166	167	174	183	189	200	205	215	238	246	252				
255	270	290	291	322	328	351	370	371	390	398	402	408	419				
423	442	443	454	462	469	470	471	473	501	502	504	508	509				
513	531	544	550	560	567	571	572	573	594	606	616	621	637				
641	648	649	652	662	674	675	686	688	695	699	702	704	706				
710	712	714	724	726	755	760	767	772	775	789	799	803	804				
805	806	810	813	824	825	829	830	834	848	849	870	879	882				
888	892	894	895	896	899	919	920	922	938	941	945	977	982				
985	987	992	997	1000	1018	1030	1034	1045	1063	1068	1069						
1073	1086	1089	1093	1098	1099	1105	1107	1108	1118	1129							
1132	1133	1134	1135	1138	1141	1156	1162	1165	1166	1172							
1190	1191	1211	1223	1226	1240	1244	1245	1246	1251	1254							
1255	1263	1269	1272	1274	1275	1286	1287	1300	1306	1332							
1344	1349	1354	1373	1384	1398	1411	1419	1421	1441	1442							
1456	1466	1469	1471	1472	1473	1492	1504	1510	1515	1521							
1533	1540	1542	1554	1555	1556	1557	1559	1603	1616	1617							
1623	1641	1645	1648	1652	1672	1692	1699	1700	1703	1707							
1708	1709	1710	1725	1736	1737	1746	1748	1749	1760	1766							
1767	1769	1797	1800	1815	1817	1819	1825	1828	1832	1833							
1841	1848	1855	1859	1886	1895	1907	1920	1925	1926	1965							
1973	1975	1976	2125	2141	2144	2306	2308	2333	2358	2369							
2386	2426	2495	2508	2511	2523	2535	2539	2548	2550	2552							
2578	2579	2590	2597	2601	2610	2619	2638	2639	2640	2673							
2688	2689	2690	2699	2713	2717	2718	2721	2723	2724	2728							
2735	2739	2753	2766	2769	2776	2786	2801	2819	2848	2852							
2871	2876	2882	2929	2930	2950	2965	2978	2999	3005	3027							
3061	3065	3075	3341	3345	3350	3369	3371	3372	3373	3382							
3383	3482	3483	3487	3708	3710	3713	3723	3727	3730	3731							
3732	3738	3740	3760	3791	3797	3808	3957	3961	3964	3988							
3994	3998	4153	4191	4216	4217	4230	4232	4253	4267								
4285	4291	4293	4298	4315	4329	5326	5336	5343	5345	5368							



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## COPPER (CONTINUED)

5382 5383 5390 5398 5399 5403 5499 5502 5510 5579 5619  
 5697 5703 5725 5750 5770 5785 5793 5864 5869 5924 5928  
 5931 5935 5944 5977 5981 5991 5995 6003 6007 6008 6009  
 6016 6037 6055 6061

## DYSPROSIUM

79 115 139 188 252 267 343 396 419 439 604 713 757 824  
 920 958 982 998 1011 1038 1196 1199 1226 1329 1466 1567  
 1648 1682 1702 1710 1723 1835 1945 1957 2369 2597 2601  
 2689 2694 2735 2920 2950 3770 3780 3811 5746 5992 6074

## ERBIUM

115 267 439 544 631 824 1055 1195 1224 1344 1478 1655  
 1710 1945 1957 1959 2689 2735 3100 4214

## EUROPIUM

39 79 115 139 228 267 343 433 439 572 585 588 662 676  
 705 845 958 998 1226 1329 1466 1682 1710 1835 1897 1945  
 1957 1959 2350 2474 2689 2694 2735 2800 2945 3395 3397  
 3714 3770 3780 3811 4301 5740 5771 5777 5936 6057 6074

## FLUORINE

17 23 29 105 141 201 313 382 423 455 479 549 659 704  
 712 716 760 824 855 895 986 1055 1065 1084 1157 1263  
 1280 1312 1442 1514 1639 1649 1764 1778 1793 1813 1823  
 1961 2126 2433 2498 2550 2584 2623 2666 2689 2796 2965  
 2987 3059 3089 3101 3767 3781 4000 4193 4198 4261 4276  
 4284 4392 5177 5356 5445 6056 6085

## GADOLINIUM

79 103 115 139 267 439 688 704 767 824 845 948 1226  
 1329 1710 1785 1945 1957 1959 2689 2735 3811 4214 4325  
 5308 5740 6043



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## GALLIUM

4	12	66	68	80	84	103	166	167	187	210	238	249	252	255
360	361	370	398	419	443	509	544	606	635	662	688	704	707	
726	760	767	799	805	806	815	834	845	870	879	895	902	920	
985	987	1045	1063	1086	1088	1092	1098	1099	1133	1134				
1135	1138	1165	1166	1226	1245	1246	1264	1272	1338	1349				
1441	1469	1477	1510	1548	1603	1616	1699	1700	1710	1723				
1736	1737	1746	1791	1817	1974	1976	2444	2523	2548	2550				
2579	2601	2683	2688	2689	2717	2718	2721	2769	2801	2950				
3059	3382	3383	3476	3485	3487	3514	3730	3791	3797	3961				
4310	5345	5365	5619	5771	5785	5787	6037							

## GERMANIUM

469	706	824	1055	1118	1275	1710	1863	2689	2954	3476
3481	3799	4253	5344	5365	5430					

## GOLD

9	13	14	85	103	124	149	163	165	166	178	186	187	189	205
215	235	246	328	374	390	405	409	419	424	462	509	512	523	
524	525	544	545	549	572	601	614	619	625	630	631	640	659	
662	674	686	688	702	706	710	713	714	724	754	755	758	760	
767	799	810	828	829	830	848	858	870	879	887	888	894	942	
943	956	968	977	995	997	1007	1014	1027	1045	1055	1060			
1073	1074	1089	1118	1132	1133	1134	1135	1191	1193	1205				
1226	1233	1241	1254	1271	1277	1286	1299	1306	1310	1320				
1332	1349	1383	1402	1412	1456	1471	1472	1477	1478	1492				
1496	1506	1550	1551	1566	1581	1584	1585	1610	1616	1641				
1648	1649	1655	1672	1699	1710	1725	1727	1736	1737	1743				
1763	1766	1797	1800	1920	1926	1929	1930	1962	2123	2296				
2308	2333	2369	2508	2511	2523	2548	2550	2614	2639	2641				
2688	2689	2699	2715	2717	2718	2721	2766	2769	2776	2801				
2805	2819	2852	2871	2887	2904	2923	2964	2966	2999	3342				
3350	3367	3382	3383	3385	3418	3467	3514	3709	3710	3738				
3757	3964	4153	4217	4230	4232	4242	4244	4249	4307	4308				
4309	4310	4312	4328	4329	5344	5364	5390	5393	5399	5499				
5500	5579	5619	5704	5717	5761	5787	5808	5848	5858	5931				
5940	5942	5949	5959	5977	5981	6008	6037	6050						



# ACTIVATION ANALYSIS-ELEMENT DETERMINED

## HAFNIUM

9 24 103 166 167 1/6 212 225 238 252 291 313 325 347  
375 419 494 549 588 614 631 641 676 683 688 704 705 726  
760 790 810 824 828 879 895 899 920 947 987 988 1003  
1014 1022 1042 1045 1055 1097 1134 1165 1173 1185 1193  
1226 1236 1381 1410 1471 1472 1477 1492 1564 1573 1574  
1578 1612 1615 1642 1699 1709 1710 1723 1736 1795 1797  
1920 1931 2550 2559 2601 2689 2717 2735 2766 2852 2950  
2979 3811 3996 4214 5369 5500 5515 5517 5771 5785 5788  
5936

## HELIUM

114 158 528 563 721

## HOLMIUM

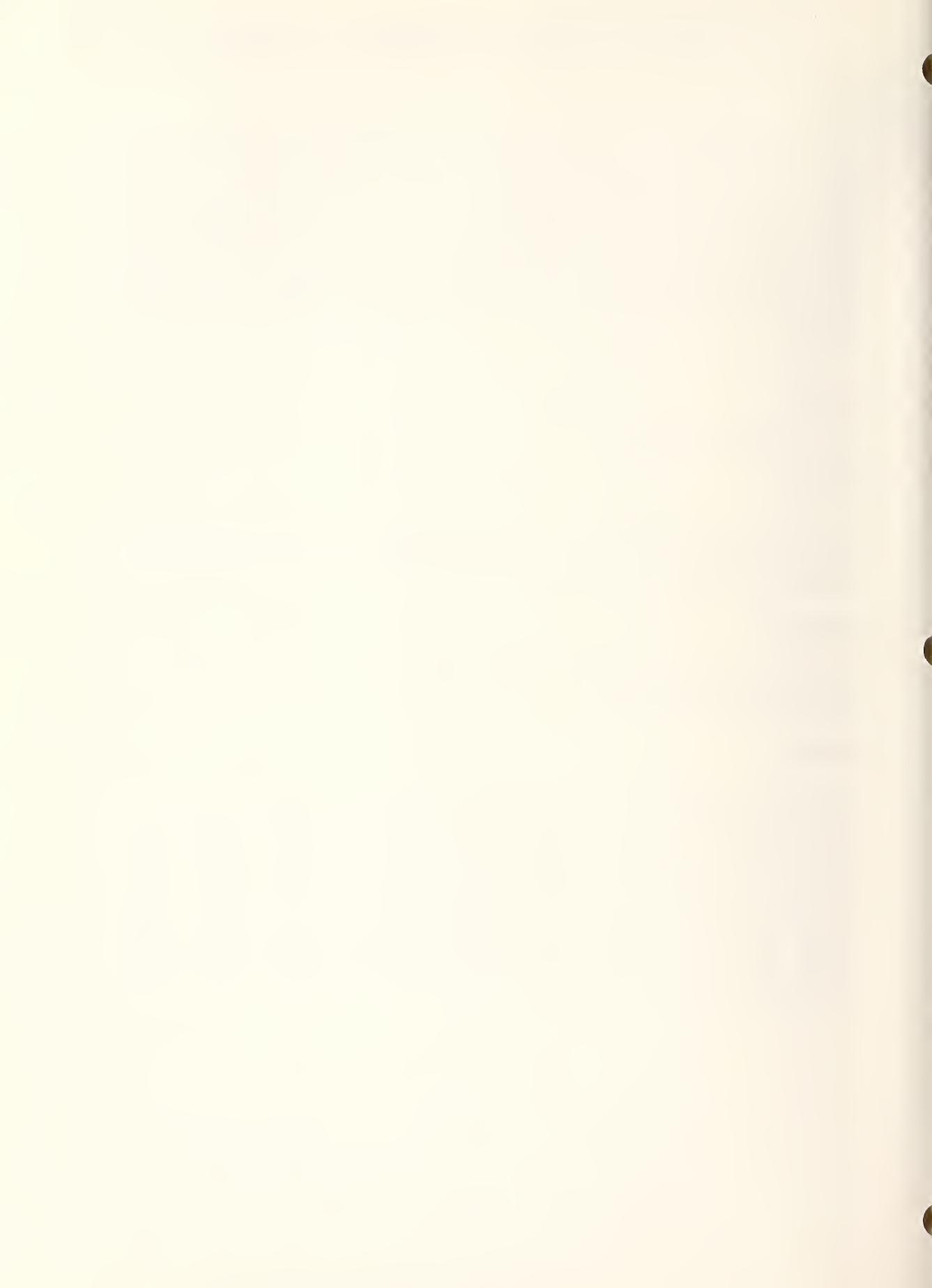
103 115 211 267 343 439 544 662 688 704 713 767 1036  
1042 1226 1344 1466 1478 1597 1655 1710 1835 1945 1957  
1959 2621 2689 2735 5732

## HYDROGEN

206 207 1062 1377 1415 1772 1785 1843 1898 1906 2303  
3033 3072 3078 5319

## INDIUM

82 141 166 205 210 229 234 239 240 249 255 272 301 344  
419 436 478 509 526 544 588 631 637 662 674 676 697 704  
705 713 724 742 760 799 810 815 870 879 894 924 941 957  
964 1006 1014 1045 1055 1118 1133 1134 1135 1166 1168  
1202 1209 1226 1243 1247 1263 1275 1349 1443 1472 1477  
1478 1548 1564 1603 1616 1655 1671 1699 1710 1727 1754  
1758 1797 1879 2340 2444 2523 2525 2601 2614 2640 2683  
2688 2689 2717 2718 2769 2801 2950 2966 3079 3383 3514  
3730 3731 3739 3740 4214 4253 4286 4328 5336 5343 5345  
5619 5703 5785 5870



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## IODINE

23 50 54 55 56 61 62 68 90 117 126 130 205 290 333 379  
 602 634 638 686 688 697 704 725 760 810 824 827 848 851  
 882 926 962 965 966 1020 1086 1096 1105 1110 1122 1143  
 1153 1208 1230 1250 1259 1266 1278 1326 1463 1470 1519  
 1529 1569 1653 1710 1725 1750 1824 1874 1914 1964 2440  
 2508 2546 2550 2558 2689 2693 2695 2758 2813 2873 2972  
 2982 3077 3101 3358 3360 3468 3483 3745 3808 3959 4190  
 4191 4232 4293 4310 5390 5397 5699 5716 5718 5948 5977  
 5995 5999 6000 6015 6017 6023 6047 6058 6068 6085

## IRIDIUM

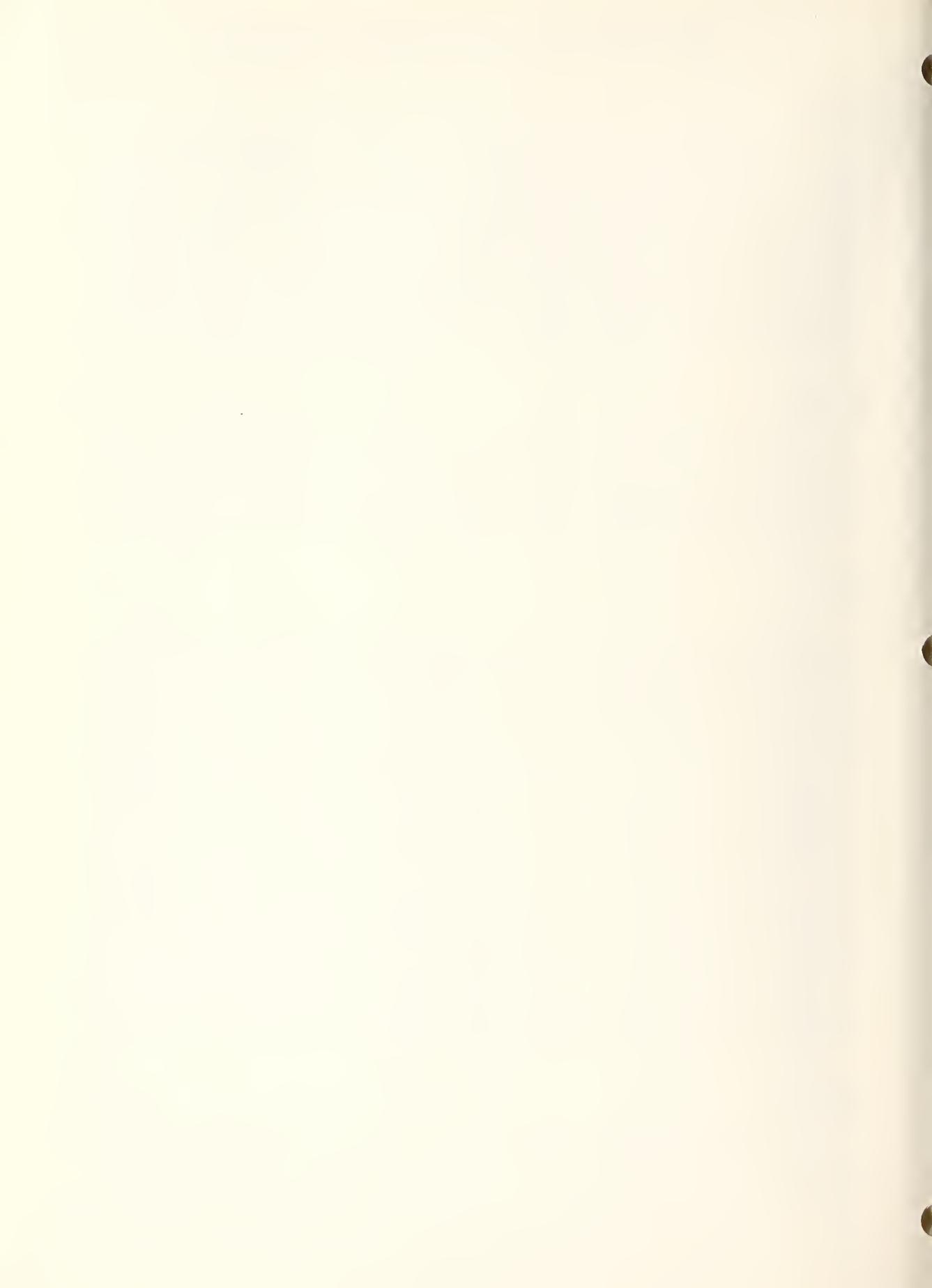
2 9 135 145 221 352 545 588 631 662 676 698 705 727 774  
 776 810 817 824 907 964 1014 1055 1095 1176 1193 1214  
 1226 1260 1344 1425 1566 1581 1693 1710 1727 2296 2515  
 2644 2689 2844 3467 3473 3530 3810 3949 4214 4312 5363  
 5399 5436 5619 5703 5717 5940

## IRON

4 22 78 83 97 102 103 113 116 138 141 166 167 174 238  
 246 252 255 263 291 322 328 352 371 398 408 419 423 433  
 471 482 504 508 509 531 567 588 606 614 637 640 641 652  
 657 662 665 676 688 692 699 704 705 712 713 716 726 735  
 741 755 760 789 790 806 815 834 879 894 920 942 961 977  
 987 1005 1042 1045 1063 1089 1118 1123 1134 1138 1165  
 1166 1184 1190 1193 1226 1251 1254 1263 1273 1277 1319  
 1338 1354 1373 1411 1412 1419 1434 1438 1456 1460 1466  
 1469 1471 1477 1512 1542 1559 1564 1603 1611 1614 1616  
 1632 1651 1699 1709 1710 1717 1721 1736 1766 1785 1786  
 1797 1798 1799 1820 1843 1844 1856 1860 1889 1897 1898  
 1912 1920 2308 2447 2507 2523 2526 2548 2550 2601 2629  
 2638 2639 2654 2658 2688 2689 2690 2694 2717 2718 2723  
 2725 2735 2769 2776 2789 2801 2819 2846 2852 2870 2871  
 2876 2878 2931 2933 2950 2965 2999 3005 3075 3382 3383  
 3418 3461 3730 3790 3957 3964 4005 4198 4211 4258 4264  
 4308 4315 5343 5345 5369 5383 5384 5619 5697 5728 5747  
 5759 5766 5771 5785 5787 5788 5808 5864 5936 5939 5941  
 5955 5977 5981 5991 6012 6016 6037

## KRYPTON

1539 1543 1891 2689 3468



ACTIVATION ANALYSIS-ELEMENT DETERMINED

LANTHANUM

79 103 115 252 395 411 419 433 439 504 511 572 585 688  
704 726 767 896 920 958 977 998 1038 1042 1134 1226  
1412 1419 1438 1466 1473 1540 1549 1596 1597 1682 1710  
1723 1736 1737 1760 1797 1835 1897 1920 1945 1957 1959  
2306 2308 2548 2597 2638 2639 2689 2694 2717 2735 2776  
2800 2819 2836 2852 2882 2999 3005 3384 3395 3470 3714  
3766 3780 4286 4329 5732 5771 5777 5785 5788 5936 6037  
6074

LEAD

141 291 423 1101 1124 1150 1212 1340 1427 1486 1911  
2251 2614 2689 2812 2965 4230 4319

LITHIUM

82 110 158 196 219 256 261 300 397 455 530 728 782 784  
841 949 981 1070 1351 1528 1576 1618 1787 1801 1857  
1906 2251 2385 2543 2755 2927 3059 3126 3376 3793 5854  
6056

LUTETIUM

103 115 224 267 439 588 676 688 704 705 713 767 1014  
1042 1226 1344 1710 1835 1945 1959 2621 2689 2694 2735  
3384 3397 3780 4301 5771 5936 5962

MAGNESIUM

54 55 56 87 98 141 205 290 328 382 442 455 509 580 581  
622 635 638 648 659 707 760 821 845 848 850 851 961 966  
1086 1087 1139 1165 1193 1217 1226 1384 1400 1409 1460  
1611 1616 1649 1708 1710 1785 1893 1912 1975 2306 2434  
2445 2499 2508 2526 2551 2689 2690 2707 2871 2945 3075  
3383 3388 3461 3483 3724 3790 3793 3976 3985 4193 4198  
4258 4272 5383 5384 5743 5759 5924 5977 5978 6056 6067



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## MANGANESE

4	5	54	55	56	59	64	68	78	80	81	83	88	97	103	130	140	141
149	166	167	175	189	205	215	238	246	252	271	290	291	291				
301	322	331	351	357	419	422	433	442	454	502	509	516	531				
544	552	561	564	573	581	586	625	635	637	640	641	648	651				
652	662	665	686	688	699	702	704	706	709	710	714	717	718				
726	735	760	767	775	777	789	806	810	813	815	829	830	834				
845	848	849	850	862	879	882	893	895	896	897	899	902	903				
919	920	929	933	934	938	941	942	966	968	969	977	985	987				
992	995	1045	1048	1068	1073	1086	1088	1089	1093	1098							
1099	1105	1107	1112	1114	1118	1124	1129	1138	1141	1162							
1166	1171	1191	1192	1193	1204	1206	1207	1226	1245	1251							
1254	1255	1263	1264	1267	1269	1272	1277	1319	1332	1354							
1376	1384	1406	1419	1434	1441	1442	1443	1456	1460	1466							
1471	1477	1487	1492	1495	1510	1513	1540	1542	1558	1559							
1572	1606	1611	1616	1636	1642	1699	1700	1703	1705	1708							
1709	1710	1723	1725	1736	1737	1744	1746	1749	1766	1767							
1769	1781	1789	1795	1800	1805	1813	1817	1819	1825	1828							
1832	1833	1840	1857	1897	1965	1975	2125	2141	2157	2306							
2337	2369	2426	2481	2495	2498	2502	2508	2511	2523	2534							
2535	2548	2550	2559	2573	2578	2579	2597	2601	2685	2688							
2689	2690	2699	2707	2717	2721	2723	2725	2733	2735	2739							
2751	2753	2766	2769	2795	2801	2804	2821	2845	2846	2848							
2852	2876	2882	2892	2931	2950	2963	2946	3062	3344	3365							
3369	3382	3383	3470	3483	3710	3713	3723	3727	3804	3957							
3964	3988	4191	4232	4263	4285	4286	4291	4293	4306	4310							
4315	4317	4329	4374	5335	5343	5368	5370	5386	5390	5500							
5501	5510	5571	5591	5619	5697	5713	5725	5726	5759	5766							
5771	5785	5792	5864	5869	5924	5936	5941	5944	5955	5972							
5977	5981	5996	6003	6006	6016	6037	6055	6067									

## MERCURY

82	103	145	146	166	167	252	302	317	460	504	509	520	533				
570	571	614	625	631	636	674	688	689	706	717	740	799	824				
879	882	894	942	977	1005	1014	1045	1105	1118	1134	1181						
1182	1212	1221	1224	1226	1239	1247	1255	1277	1288	1340							
1409	1412	1462	1471	1477	1479	1497	1553	1568	1603	1699							
1710	1737	1746	1797	1825	1894	1920	1949	2296	2308	2403							
2430	2447	2508	2548	2563	2565	2572	2638	2639	2689	2699							
2707	2715	2739	2769	2776	2819	2838	2852	2999	3084	3360							
3376	3774	3789	3791	3808	3957	3989	4153	4214	4232	4267							
4268	4285	5327	5390	5447	5499	5510	5698	5725	5728	5771							
5785	5792	5808	5860	5944	5977	6003	6008	6037	6061	6080							



# ACTIVATION ANALYSIS-ELEMENT DETERMINED

## MOLYBDENUM

66 68 103 116 140 165 166 167 205 246 291 322 328 398  
409 442 504 508 509 575 641 688 704 726 758 760 767 773  
799 804 810 820 870 879 980 1045 1086 1118 1124 1133  
1134 1135 1150 1165 1190 1191 1215 1220 1234 1254 1275  
1291 1340 1412 1442 1456 1471 1472 1477 1484 1515 1592  
1616 1699 1709 1710 1715 1727 1786 1797 1832 1844 1907  
1910 1920 1965 2308 2369 2495 2508 2523 2550 2638 2639  
2689 2699 2717 2735 2769 2776 2819 2836 2852 2871 2881  
2882 3059 3383 3487 3732 3808 3964 3982 4232 4253 4411  
5785 5808 6003 6008

## NEODYMIUM

103 115 267 439 688 704 767 1042 1226 1710 1835 1945  
1957 1959 2498 2597 2689 2735 2999 3087 3384 3395 4250

## NEON

528 1891 2689

## NICKEL

4 5 78 81 83 103 140 141 149 166 167 174 205 270 282  
287 291 291 322 352 390 419 462 470 471 482 502 508 509  
531 544 614 616 635 641 652 674 688 704 724 755 760 767  
789 804 810 815 818 845 879 896 919 928 1027 1045 1117  
1118 1124 1138 1165 1167 1190 1191 1193 1226 1240 1254  
1354 1375 1398 1441 1456 1471 1477 1515 1526 1559 1614  
1616 1699 1703 1709 1710 1717 1725 1727 1737 1785 1832  
1965 1973 2369 2495 2508 2523 2548 2550 2578 2601 2619  
2658 2673 2689 2723 2724 2744 2769 2950 3383 3418 3661  
3957 3964 4272 4308 5345 5368 5386 5448 5500 5619 5759  
5788 5955 5981 6037

## NIOBIUM

89 197 353 419 697 1102 1137 1172 1201 1226 1232 1340  
1410 1518 1538 1582 1710 1911 2499 2502 2611 2689 2690  
2830 3560 3793 4411



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## NITROGEN

49 201 346 423 495 497 499 637 696 703 704 712 716 760  
 811 814 841 1065 1263 1312 1408 1442 1599 1670 1680  
 1738 1778 1816 1823 1849 1857 1896 1898 1939 2129 2298  
 2384 2505 2524 2550 2569 2661 3059 3070 3364 3474 3976  
 3995 4193 4211 5238 5420 5442 5782 6056

## OSMIUM

221 222 224 226 34/ 352 683 1076 1095 1119 1134 1226  
 1340 1431 1492 1502 1710 1797 1920 2689 2766 4312 5436  
 5717 5719 5940

## OXYGEN

29 38 45 46 49 58 69 74 75 105 108 109 113 131 153 160  
 199 201 285 391 403 423 423 426 455 495 497 500 519 549  
 567 578 591 596 611 623 629 637 638 654 655 659 695 703  
 712 716 756 762 770 771 811 814 839 841 843 860 863 867  
 868 912 913 921 959 977 1023 1055 1060 1065 1067 1071  
 1075 1103 1104 1116 1151 1158 1190 1194 1229 1238 1248  
 1252 1256 1258 1263 1294 1297 1309 1312 1318 1330 1394  
 1399 1414 1424 143/ 1442 1450 1453 1483 1491 1509 1522  
 1530 1532 1589 1598 1604 1646 1649 1668 1675 1686 1704  
 1713 1721 1730 1739 1742 1773 1778 1798 1802 1804 1811  
 1814 1816 1823 1831 1857 1887 1889 1896 1900 1904 1906  
 1912 1915 1939 1950 1954 1956 1979 2129 2297 2298 2381  
 2418 2453 2498 2504 2505 2506 2507 2518 2526 2540 2542  
 2543 2549 2550 2562 2580 2586 2591 2598 2608 2615 2634  
 2649 2668 2678 2684 2686 2726 2734 2749 2764 2772 2774  
 2798 2802 2933 2948 2949 2965 2983 3043 3070 3073 3077  
 3085 3090 3355 3357 3461 3502 3553 3711 3718 3721 3722  
 3727 3729 3746 3753 3768 3771 3783 3790 3793 3810 3965  
 3970 3973 3976 3977 3981 3986 3992 4193 4196 4197 4198  
 4209 4211 4226 4260 4277 4386 5238 5321 5322 5330 5353  
 5380 5384 5409 5431 5432 5435 5442 5450 5451 5452 5708  
 5752 5768 5769 5772 5780 5781 5921 5923 5938 6053 6065  
 6066 6072

## PALLADIUM

28 84 103 166 167 187 262 352 462 525 544 545 588 662  
 676 705 724 760 776 879 997 1176 1226 1235 1275 1458  
 1539 1581 1693 1699 1710 2689 2839 3810 4253 4312 5307  
 5436 5619 5703 5711



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## PHOSPHORUS

4 22 35 47 54 56 123 140 161 189 223 243 244 246 255  
 328 385 398 414 419 438 442 443 455 504 508 509 553 588  
 591 638 641 652 676 688 689 699 704 705 706 714 716 767  
 829 830 864 869 871 892 893 894 921 936 954 975 976 977  
 979 985 1045 1057 1078 1085 1086 1118 1124 1134 1165  
 1166 1177 1190 1193 1198 1215 1223 1237 1242 1311 1342  
 1344 1412 1441 1442 1455 1471 1477 1520 1534 1552 1601  
 1614 1670 1694 1709 1710 1738 1747 1752 1762 1766 1767  
 1778 1780 1797 1815 1818 1832 1870 1892 1896 1899 1907  
 1937 1939 1948 1965 2052 2129 2148 2384 2386 2474 2498  
 2508 2523 2550 2633 2638 2657 2680 2689 2705 2721 2748  
 2759 2764 2819 2849 2852 2871 2931 2945 2965 2969 2999  
 3383 3469 3716 3736 3997 4193 4207 4273 4388 5357 5370  
 5395 5405 5406 5472 5499 5731 5785 5793 5927 5981 6004  
 6012 6056 6063 6086

## PLATINUM

9 205 352 509 544 545 588 631 662 676 705 741 776 817  
 824 1014 1045 1118 1134 1176 1226 1235 1458 1512 1566  
 1649 1693 1710 1797 1920 2639 2717 5436 5619 5717 5942  
 5984 6024

## PLUTONIUM

326 336 841 1357 1906 1921 2553 2689 2998

## POTASSIUM

22 35 54 55 56 73 79 103 123 166 167 189 205 246 259  
 268 290 300 371 414 419 429 442 493 538 541 553 637 652  
 662 686 688 699 702 704 739 815 845 848 849 879 888 894  
 903 923 933 934 1045 1048 1086 1089 1131 1145 1190 1193  
 1226 1263 1311 1344 1354 1395 1419 1466 1472 1477 1510  
 1552 1558 1559 1597 1660 1699 1707 1710 1719 1746 1785  
 1896 1898 1963 2008 2523 2550 2673 2689 2707 2727 2797  
 2819 2852 2876 2945 2965 2973 2999 3059 3081 3334 3368  
 3383 3393 3483 3669 3736 3769 3775 3791 3810 3990 4193  
 4198 4240 4248 4262 4278 4315 5370 5384 5386 5422 5500  
 5571 5619 5697 5703 5785 5924 5936 5977 6005 6011 6056  
 6063 6067

## PRASEODYMIUM

103 115 439 546 688 704 767 960 1115 1226 1710 1835  
 1945 1957 1959 1978 2498 2689 2735 3087 3328 3397 4301



ACTIVATION ANALYSIS-ELEMENT DETERMINED

PROMETHIUM

6057

PROTACTINIUM

1439 2889

RADIUM

1439

RHENIUM

85 86 165 186 205 224 226 362 409 511 600 677 683 686  
713 758 768 810 964 1045 1226 1431 1478 1502 1584 1585  
1655 1710 1727 1760 1803 2296 2350 2431 2689 2811 2902  
3384 3414 4310 4311 5592 5619 5703 5719 5857 6054

RHODIUM

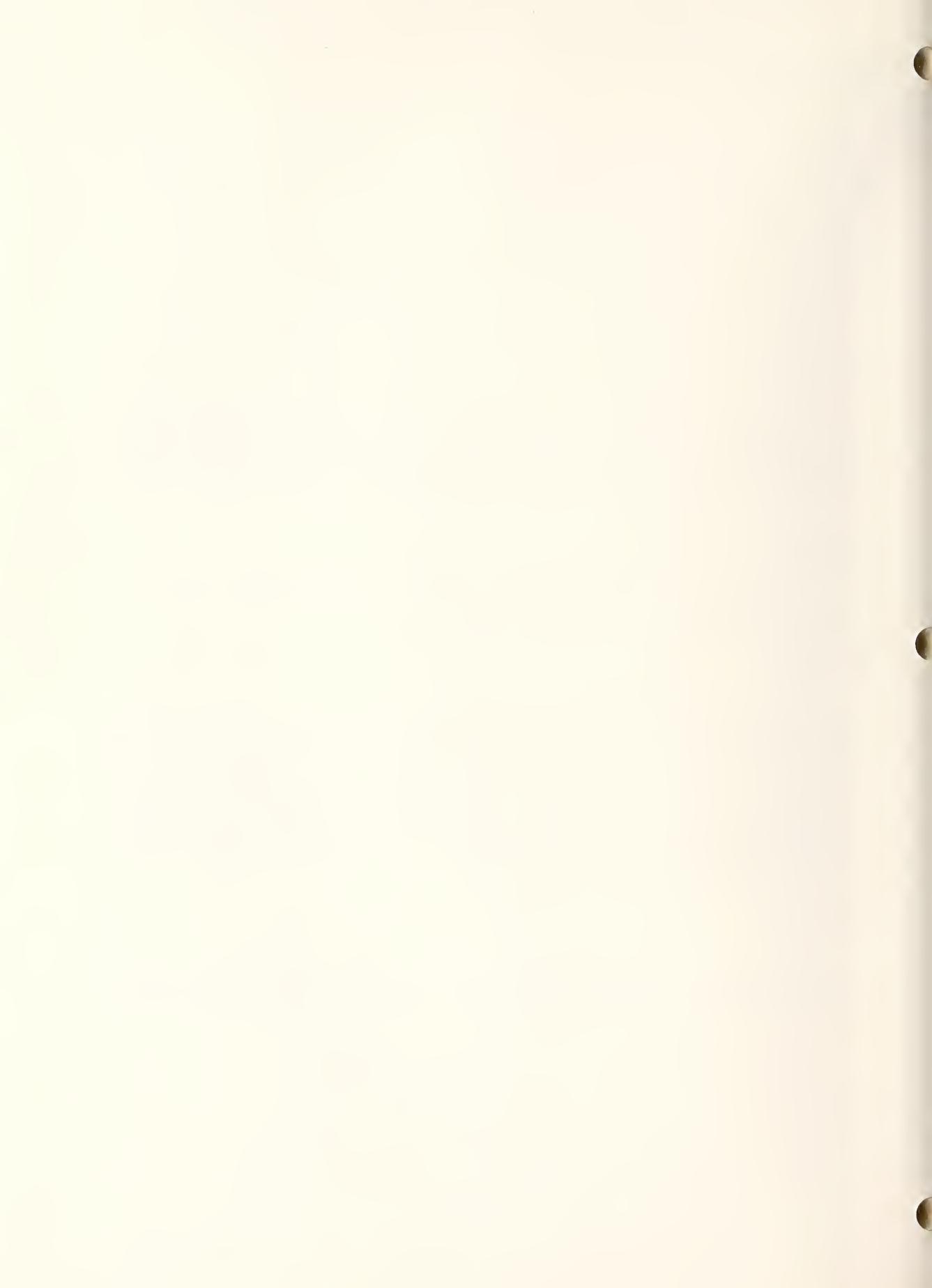
344 352 436 631 697 713 824 941 1014 1055 1172 1226  
1228 1710 2689 2966 3793 4312

RUBIDIUM

54 55 56 79 93 96 103 138 166 167 290 300 328 460 462  
469 477 504 588 614 676 688 705 741 790 810 815 815 824  
852 879 968 999 1027 1042 1045 1055 1089 1134 1190 1197  
1222 1226 1265 1332 1412 1449 1466 1477 1512 1597 1699  
1710 1727 1737 1766 1797 1800 1817 1920 1952 1973 2308  
2508 2523 2548 2550 2614 2638 2639 2689 2735 2776 2819  
2852 2871 2999 3383 3468 3483 3775 4214 4310 5369 5728  
5771 5785 5936 5977 5981 6037

RUTHENIUM

205 347 352 358 588 676 705 1076 1086 1147 1226 1235  
1425 1492 1710 2689 2766 2836 4255 4312 5311 5717 5940



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## SAMARIUM

79	103	115	139	252	267	343	395	419	433	439	504	572	585
688	704	713	767	806	920	948	958	998	1036	1038	1042	1226	
1245	1329	1338	1466	1549	1596	1682	1700	1710	1723	1737			
1785	1835	1897	1920	1945	1957	1959	2308	2597	2638	2639			
2664	2689	2694	2776	2800	2819	2852	2999	3395	3470	3714			
3780	3811	4286	5771	5785	5788	5936	6074						

## SCANDIUM

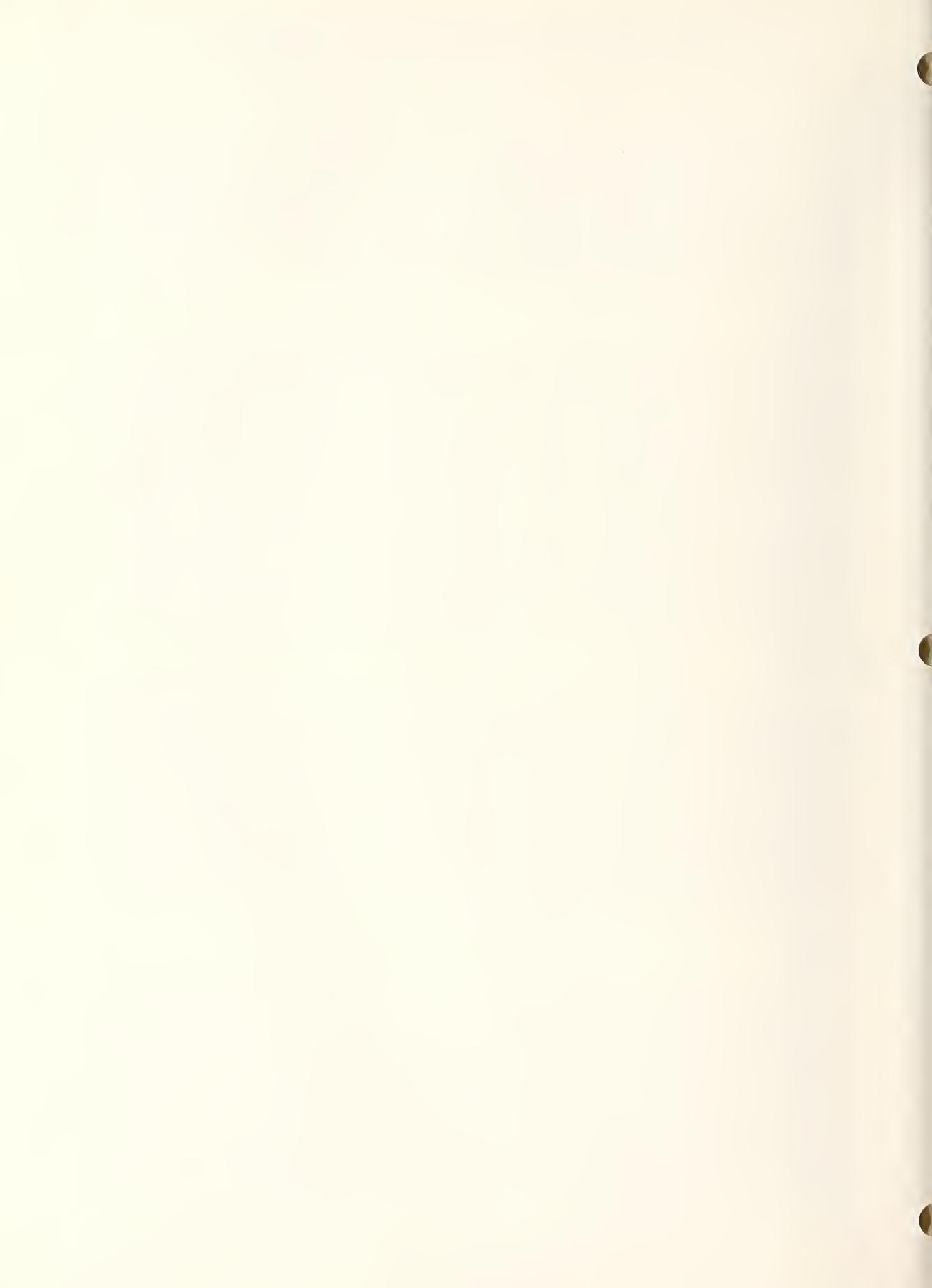
39	103	140	227	238	252	257	433	509	528	572	587	588	604
614	637	640	659	676	688	704	704	705	713	735	767	789	806
810	815	824	834	879	920	942	964	977	987	1011	1042	1045	
1055	1134	1165	1196	1226	1245	1251	1263	1273	1277	1319			
1338	1354	1412	1419	1438	1454	1456	1466	1469	1471	1472			
1477	1492	1493	1540	1564	1596	1649	1699	1700	1710	1723			
1727	1736	1741	1746	1760	1795	1797	1813	1817	1860	1897			
1920	1945	1965	1970	2283	2296	2306	2308	2430	2447	2474			
2550	2559	2597	2601	2639	2689	2690	2694	2717	2732	2735			
2739	2766	2776	2800	2819	2852	2888	2931	2950	2999	3005			
3088	3396	3470	3957	4329	4381	5343	5369	5448	5500	5591			
5728	5771	5785	5788	5934	5936	5939	5941	6012	6079				

## SELENIUM

103	148	166	167	174	284	328	387	407	419	434	504	542	549
562	588	592	607	614	625	631	674	676	688	705	706	707	709
717	726	753	792	810	824	844	852	879	894	1014	1024	1027	
1055	1086	1118	1134	1138	1190	1203	1226	1300	1340	1349			
1412	1442	1477	1567	1649	1654	1665	1699	1702	1710	1712			
1737	1797	1894	1920	2296	2308	2403	2455	2503	2508	2548			
2550	2638	2639	2644	2676	2689	2699	2707	2764	2776	2819			
2852	2853	2871	2954	2999	3060	3418	3791	3809	3948	3954			
3956	4214	4232	4268	4274	4305	4308	5307	5366	5619	5771			
5785	5808	5864	5994	6012	6037								

## SILICON

4	54	56	81	98	102	113	141	285	291	417	419	423	452	497
517	518	555	580	591	612	622	623	628	637	641	665	695	712	
716	810	838	850	851	881	921	944	961	1017	1190	1193	1263		
1297	1414	1460	1535	1558	1559	1590	1591	1611	1642	1686				
1709	1710	1721	1740	1785	1798	1818	1832	1843	1875	1889				
1898	1912	1954	2354	2429	2498	2504	2506	2507	2526	2550				
2596	2662	2684	2689	2735	2774	2865	2933	2940	2941	2956				
2965	2987	3075	3355	3461	3753	3790	3976	3997	4005	4193				
4198	4198	4205	4258	5383	5384	5416	5720	5730	5759	5776				
5884	6086													



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## SILVER

13	30	31	82	83	103	125	130	141	166	167	193	205	255	334
344	363	364	365	366	386	419	423	436	460	509	549	589	608	
614	619	631	635	638	674	686	688	697	704	709	713	738	741	
760	790	798	805	824	832	845	879	894	941	984	1014	1018		
1027	1028	1036	1042	1045	1055	1066	1093	1095	1106	1111				
1118	1123	1124	1129	1132	1134	1165	1166	1172	1190	1193				
1226	1247	1275	1277	1320	1349	1354	1371	1375	1412	1466				
1471	1472	1477	1478	1492	1512	1525	1542	1567	1584	1614				
1615	1655	1672	1699	1702	1710	1712	1737	1797	1825	1830				
1832	1873	1920	1953	1955	2144	2154	2308	2333	2447	2508				
2511	2523	2548	2550	2612	2625	2639	2671	2689	2694	2699				
2715	2766	2776	2819	2852	2966	2999	3059	3374	3383	3394				
3418	3487	3738	3740	3810	3949	3957	3988	3998	4191	4214				
4215	4230	4253	4303	4308	4328	5307	5344	5369	5394	5438				
5579	5619	5703	5726	5728	5785	5808	5848	587n	5977	6012				
6037	6061													

## SODIUM

4	6	7	22	29	35	54	55	56	73	79	102	103	104	107	123	136
141	155	166	167	174	175	189	205	215	237	238	246	252	259			
274	275	290	300	328	330	370	371	382	385	398	400	413	414			
417	418	419	423	429	432	433	442	450	454	455	467	487	488			
489	509	511	521	541	544	553	555	561	564	606	625	635	637			
641	652	659	662	686	688	699	702	704	706	707	714	730	735			
760	767	775	789	810	812	829	830	831	834	842	845	848	849			
850	853	879	887	888	894	895	903	923	933	934	939	942	945			
961	966	968	969	977	979	992	993	995	1045	1055	1061	1063				
1086	1089	1118	1134	1138	1165	1193	1216	1217	1226	1227						
1251	1263	1269	1272	1283	1289	1311	1319	1332	1344	1351						
1354	1376	1392	1395	1398	1419	1438	1452	1456	1460	1466						
1471	1472	1477	1492	1495	1505	1510	1533	1540	1542	1552						
1558	1559	1606	1616	1617	1649	1664	1699	1703	1707	1709						
1710	1715	1725	1736	1737	1746	1751	1766	1780	1785	1800						
1813	1819	1857	1891	1925	1936	1957	1968	1976	1983	2121						
2141	2306	2365	2376	2422	2498	2502	2508	2519	2523	2548						
2550	2579	2619	2651	2657	2662	2673	2680	2688	2689	2690						
2707	2711	2717	2735	2751	2759	2766	2775	2797	2801	2819						
2852	2871	2882	2963	2973	2999	3350	3365	3368	3369	3383						
3470	3483	3708	3723	3736	3769	3791	3808	3964	3990	4191						
4193	4198	4201	4216	4231	4248	4258	4263	4281	4283	4285						
4286	4293	4329	4347	5326	5343	5370	5384	5390	5399	5402						
5500	5510	5619	5697	5703	5725	5771	5785	5869	5924	5931						
5936	5981	6005	6011	6014	6037	6055	6056	6062	6063	6067						



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## STRONTIUM

22 54 55 56 67 68 80 103 166 167 214 236 290 442 459  
 460 469 483 484 485 588 595 614 631 635 676 688 697 704  
 705 708 714 723 788 803 810 815 829 830 856 879 963 968  
 1014 1045 1086 1088 1089 1134 1150 1170 1190 1226 1277  
 1281 1332 1334 1340 1665 1697 1699 1710 1727 1737 1766  
 1797 1800 1890 1982 2006 2523 2548 2550 2675 2689 2852  
 2977 2984 3383 3483 4272 4329 5500 5619 5755 5771 5785  
 5951 5991 6002 6016 6037 6055 6064 6067

## SULFUR

22 37 140 141 291 420 437 495 497 588 591 641 652 659  
 676 688 699 704 705 706 716 767 892 893 897 921 937 977  
 1045 1057 1085 1124 1177 1193 1215 1218 1237 1354 1378  
 1455 1456 1471 1477 1479 1520 1559 1570 1601 1621 1649  
 1709 1711 1720 1778 1782 1785 1818 1857 1870 1898 1965  
 2129 2148 2149 2550 2689 2751 2764 2794 2849 2948 2963  
 3709 3716 3723 3793 4193 4227 4258 4285 4300 5510 5543  
 5923 6086

## TANTALUM

9 26 51 97 103 145 147 166 167 179 197 265 266 291 319  
 367 371 390 419 508 509 544 575 614 637 641 662 688 698  
 704 729 760 789 799 820 849 870 879 887 896 910 955  
 1002 1045 1102 1118 1123 1127 1128 1137 1165 1166 1201  
 1226 1263 1319 1410 1434 1454 1478 1487 1510 1538 1582  
 1615 1616 1655 1699 1709 1710 1759 1803 1817 1829 1840  
 1966 2480 2496 2502 2523 2689 2690 2717 2830 3346 3383  
 3387 4310 4411 5500 5786 5936

## TECHNETIUM

10 11 15 72 697 1220 2673

## TELLEURIUM

103 166 167 174 224 270 434 511 588 662 676 688 705 760  
 792 845 879 894 1118 1122 1226 1240 1246 1300 1412 1441  
 1477 1567 1603 1702 1710 1848 2537 2550 2640 2689 3730  
 3731 4321 5307 5336 5619 5716 5730 5948



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## TERBIUM

79 103 115 267 439 544 662 688 704 767 1042 1226 1324  
 1478 1649 1655 1710 1723 1803 1835 1945 1957 1959 2689  
 2694 3100 3395 3714 5771 5936

## THALLIUM

89 133 141 146 255 363 365 411 419 697 815 869 883 1172  
 1212 1603 1710 2006 2525 2643 2689 3793 4221 4310 5619  
 5984

## THORIUM

40 41 42 54 55 56 104 120 137 166 250 289 290 393 395  
 421 640 641 656 688 704 708 790 808 815 828 879 973  
 1042 1045 1090 1165 1180 1189 1226 1277 1361 1371 1391  
 1401 1404 1439 1454 1477 1494 1498 1571 1699 1709 1722  
 1723 1725 1746 1760 1774 1817 1842 1857 1906 2122 2437  
 2447 2550 2636 2714 2852 2882 2976 3105 3483 3958 4198  
 4203 4302 4391 5323 5328 5735 5771 5785 5788 5790 5867  
 5936 6069

## THULIUM

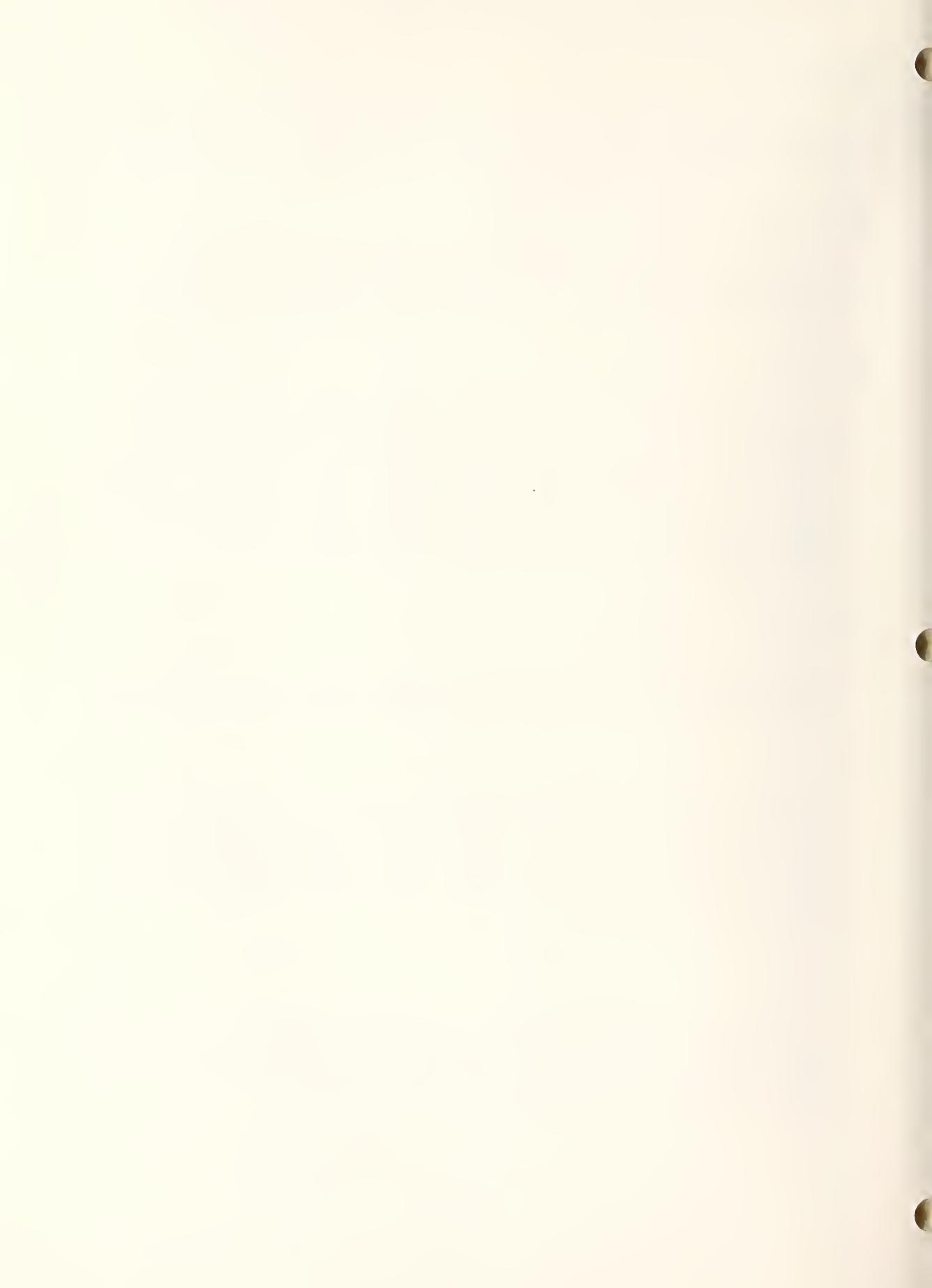
115 439 544 588 662 676 705 713 811 1042 1226 1344 1478  
 1584 1655 1710 1803 1835 1945 1959 2689 3714 5308 5936

## TIN

141 149 174 205 508 509 537 575 588 631 676 702 705 790  
 799 820 845 870 894 941 1042 1045 1113 1123 1124 1125  
 1133 1135 1165 1166 1191 1226 1349 1385 1564 1709 1710  
 1856 1863 2144 2296 2430 2523 2601 2640 2654 2689 2694  
 2717 2769 2950 3383 3730 3731 3793 4268 4328 5336 5344  
 5369 5619 5712 5977

## TITANIUM

78 83 140 205 291 659 697 760 821 841 851 953 1124 1134  
 1172 1226 1340 1363 1375 1442 1501 1710 1797 1863 1898  
 1911 1965 2306 2499 2550 2628 2689 2689 2965 3355 3560  
 3793 4189 4211 4286 6065



## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## TUNGSTEN

26	65	81	103	140	141	145	165	166	167	189	205	230	246
252	291	304	347	371	409	419	504	508	548	549	575	631	637
659	687	688	698	704	714	726	758	760	767	779	783	799	810
820	824	829	830	849	870	879	893	920	990	1042	1045	1055	
1086	1093	1118	1118	1150	1155	1165	1169	1215	1226	1263			
1332	1340	1363	1371	1406	1412	1471	1477	1487	1649	1693			
1699	1709	1710	1727	1800	1817	1829	1840	1920	1965	2308			
2480	2495	2496	2502	2523	2550	2614	2638	2639	2690	2717			
2718	2769	2776	2819	2852	2882	2999	3379	3383	3384	3808			
3810	3975	3997	4232	4411	5378	5385	5619	5703	5771	5785			

## URANIUM

14	52	53	120	142	143	151	166	167	209	213	217	233	252
269	288	290	321	326	327	329	332	349	377	393	410	412	419
448	449	461	472	490	492	511	514	530	564	572	588	614	640
641	656	676	688	692	704	705	708	728	737	760	790	808	810
819	824	828	841	866	879	880	909	920	946	952	971	1019	
1025	1042	1059	1076	1079	1090	1109	1122	1124	1134	1180			
1169	1190	1212	1226	1302	1325	1357	1361	1371	1389	1404			
1428	1429	1439	1442	1468	1477	1478	1494	1498	1527	1531			
1597	1607	1652	1699	1709	1723	1725	1727	1797	1817	1857			
1865	1901	1906	1960	1973	2437	2474	2550	2673	2754	2852			
3074	3391	3483	3755	3808	3958	3987	4198	4208	4381	5262			
5323	5328	5343	5439	5447	5551	5716	5732	5735	5765	5771			
5785	5788	5790	5867	5948	5953	5965	6012	6077					

## VANADIUM

47	68	80	81	89	107	140	165	205	230	257	301	305	409	419
468	509	598	607	635	637	638	641	686	687	690	697	702	704	
752	758	760	781	797	810	821	824	849	851	883	893	895	941	
1001	1086	1088	1093	1097	1145	1150	1172	1226	1254	1263				
1289	1298	1313	1317	1319	1340	1442	1460	1471	1492	1526				
1565	1631	1665	1709	1710	1727	1749	1788	1911	1938	1965				
1980	2495	2499	2550	2601	2662	2689	2696	2707	2766	2950				
3344	3713	3793	4191	4206	4232	4270	4314	5410	5701	5958				
5970	5995	6003	6065											

## XENON

1412	1539	1891	2689
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## ACTIVATION ANALYSIS-ELEMENT DETERMINED

## YTTERBIUM

115	267	439	588	641	676	705	713	1008	1021	1042	1055
1226	1344	1709	1710	1835	1882	1945	1959	2689	2694	2735	
2931	3100	3384	3714	3780	5447	5771	5936	6043			

## YTTRIUM

103	115	227	267	291	544	631	659	662	688	704	760	767	879
1014	1055	1340	1374	1403	1413	1474	1596	1649	1699	1710			
1725	1835	1945	1959	1978	2498	2550	2614	2657	2689	2735			
3100	3997	4214	6079										

## ZINC

33	34	54	55	56	63	68	78	83	103	116	138	140	141	166	167
174	205	246	252	255	263	290	291	322	328	358	370	371	418		
419	442	454	504	508	509	513	544	584	586	588	606	614	622		
625	635	637	641	648	652	662	676	686	688	699	704	705	706		
707	710	714	726	767	789	790	799	804	810	815	824	829	830		
834	845	870	879	888	894	899	920	941	942	968	977	985	987		
1005	1042	1045	1063	1068	1069	1086	1089	1105	1107	1113					
1118	1123	1133	1134	1135	1138	1159	1165	1166	1190	1193					
1210	1211	1215	1223	1240	1244	1254	1263	1273	1275	1277					
1286	1307	1332	1344	1354	1373	1384	1411	1412	1432	1434					
1438	1441	1456	1466	1469	1471	1472	1477	1492	1515	1564					
1601	1613	1616	1645	1648	1670	1677	1678	1699	1703	1707					
1708	1709	1710	1723	1736	1737	1738	1745	1766	1767	1797					
1800	1815	1825	1828	1856	1920	1965	2124	2296	2308	2333					
2386	2430	2447	2508	2509	2523	2534	2539	2548	2550	2578					
2601	2613	2619	2638	2639	2640	2654	2665	2669	2673	2688					
2689	2690	2699	2717	2718	2721	2739	2766	2769	2776	2801					
2819	2848	2852	2870	2871	2876	2931	2950	2965	2999	3059					
3061	3075	3382	3383	3418	3475	3483	3485	3487	3708	3723					
3730	3731	3732	3740	3957	3961	4153	4232	4253	4263	4267					
4286	4291	4308	4315	4329	5307	5336	5345	5369	5370	5383					
5386	5390	5438	5448	5502	5619	5697	5703	5725	5728	5753					
5771	5785	5808	5864	5869	5924	5944	5950	5977	5981	5991					
5995	6003	6008	6012	6016	6037	6061	6067								

## ZIRCONIUM

9	24	83	103	166	167	176	212	232	398	507	509	588	614	641
676	688	704	705	767	815	879	988	1022	1045	1045	1124			
1165	1173	1226	1375	1381	1410	1477	1481	1537	1646	1709				
1710	1765	1860	2498	2550	2689	2717	2735	2965	3363	3488				
4317	5500	5771	5936											



ACTIVATION ANALYSIS-ELEMENT DETERMINED

RARE EARTHS

7 102 166 167 227 258 544 879 895 925 1015 1016 1045  
1047 1187 1205 1239 1257 1323 1356 1404 1474 1477 1681  
1774 1839 2145 2327 2369 2550 2741 2763 2932 3376 3383  
3386 3395 3397 3732 3810 4219 4322 5347 5359 5500 5705  
5706 5707 5778 5862 5873 5961 5963 5964 6049 6077 6079

LANTHANIDES

1205 1285



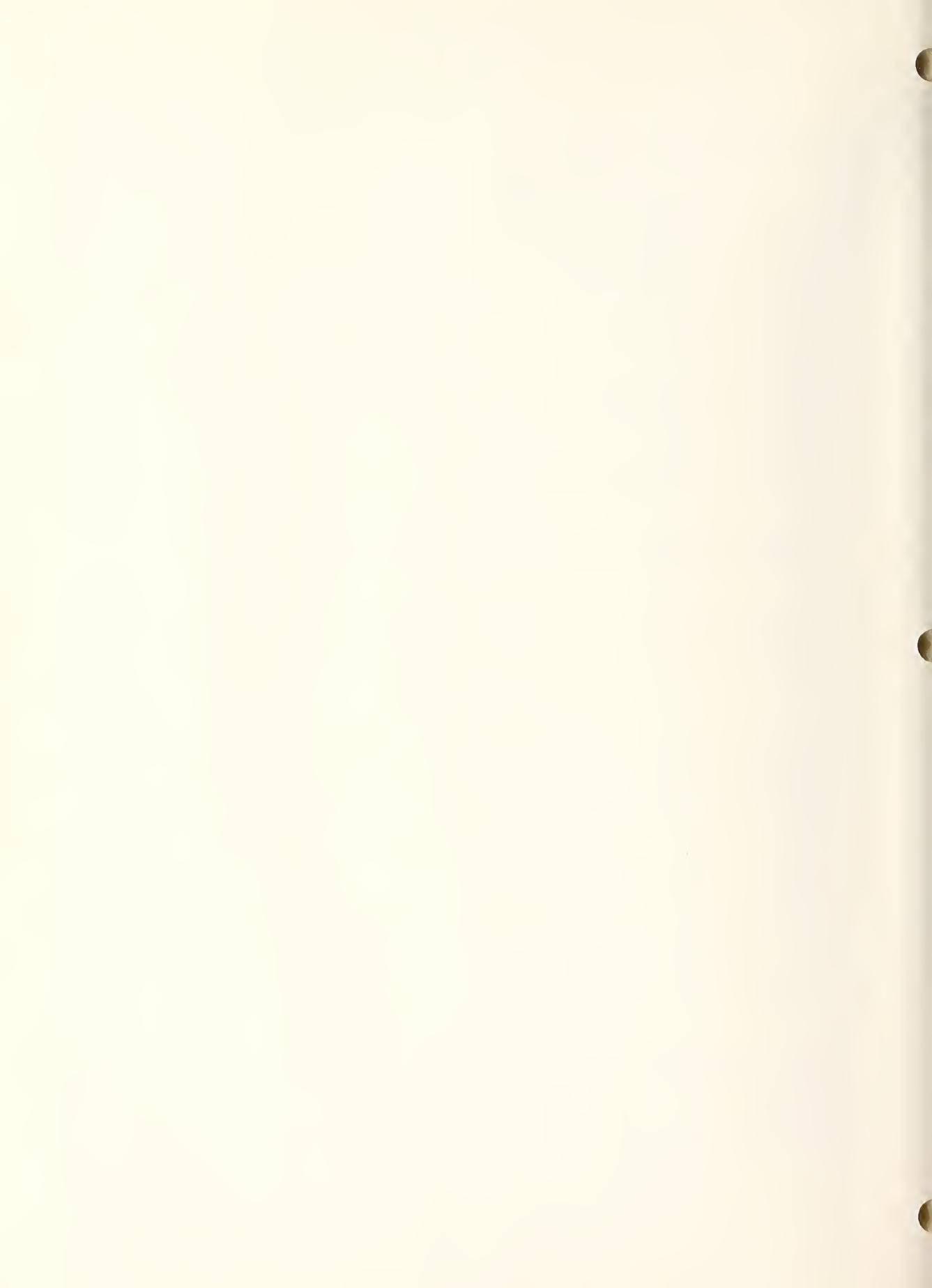
## APPENDIX III



## APPENDIX III

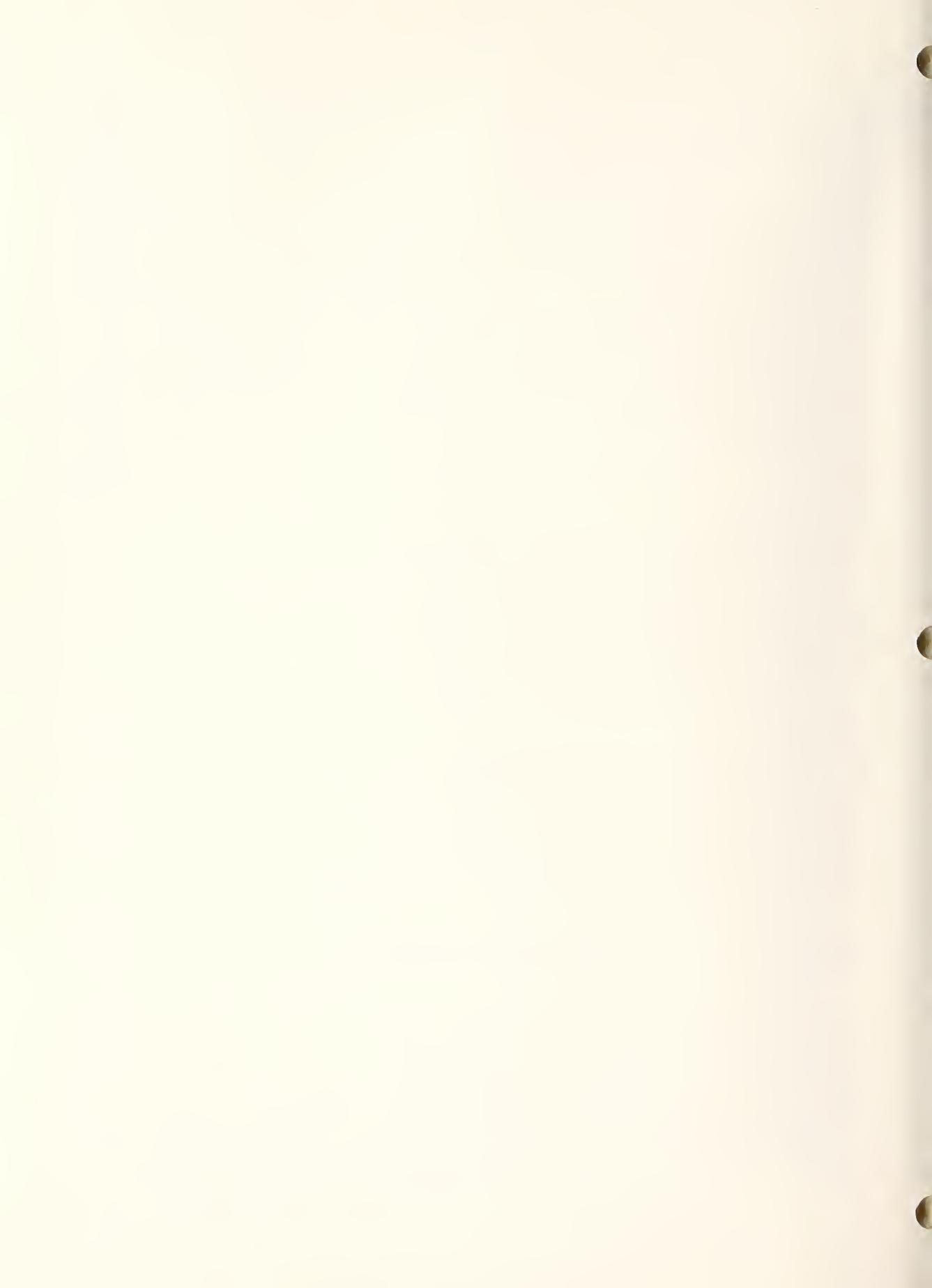
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# ACTIVATION ANALYSIS-MATRIX ANALYZED

## AIR, ATMOSPHERE

184 185 476 562 966 1004 1036 1081 1083 1266 1543 1569  
1874 1924 2553 2693 2981 2998 5397 5967 6017 6058

## ARCHAEOLOGICAL SPECIMENS

13 351 533 561 619 1032 1132 1301 1306 1376 1897 1926  
2495 2575 2762 2945 3738 3998 4230 4328 5579 5729 5742  
5788

## ART

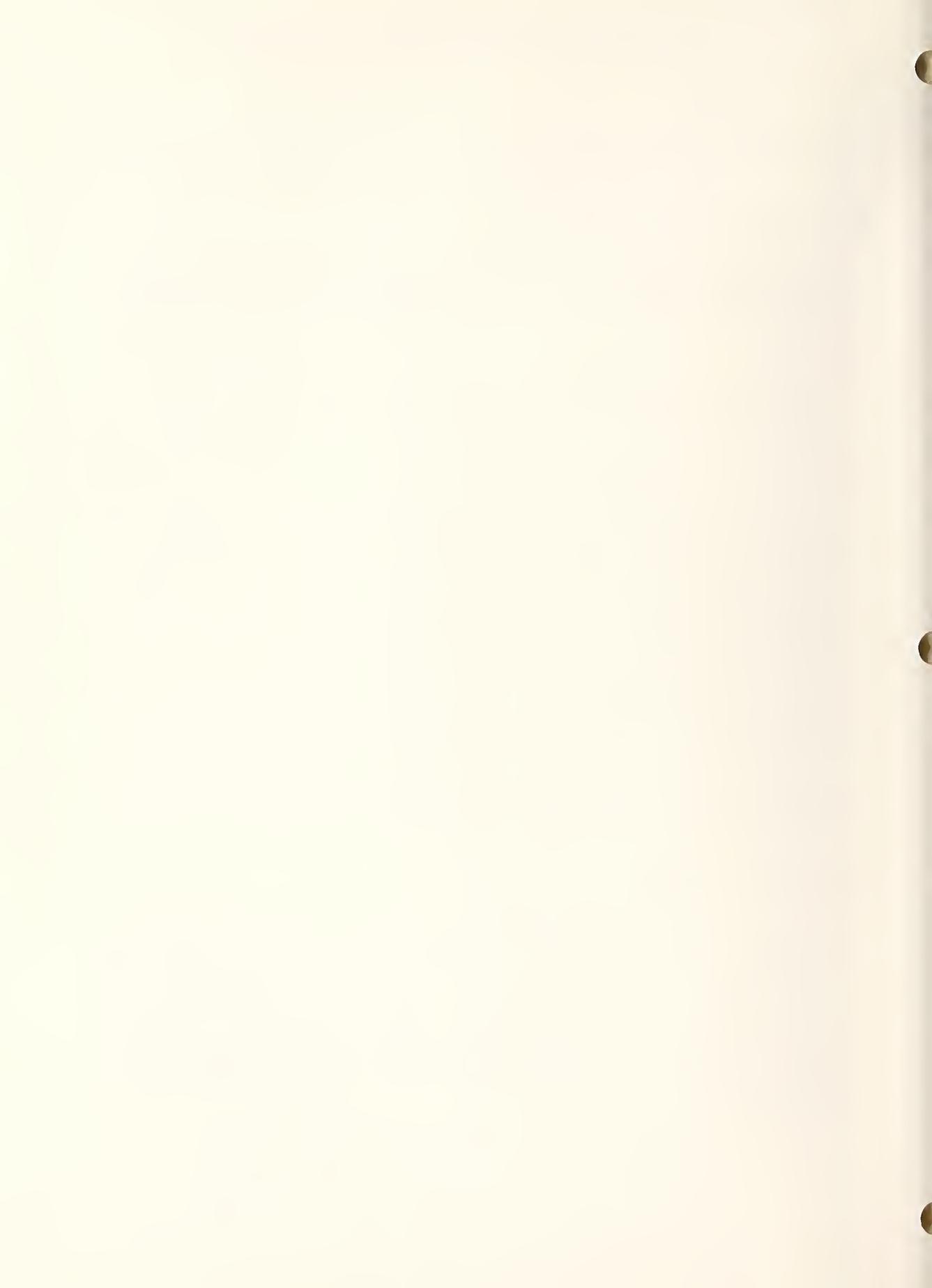
1504 1825 1834 2589 2694 3988 6031 6061

## BIOLOGICAL, GENERAL, INCLUDING VIRUS

35 47 59 68 80 123 155 192 214 284 308 310 317 320 425  
476 486 541 592 594 595 638 651 709 717 811 839 848 894  
930 939 965 975 976 999 1056 1086 1088 1100 1105 1120  
1125 1190 1195 1198 1224 1241 1288 1296 1308 1317 1370  
1389 1436 1439 1461 1506 1534 1567 1577 1625 1644 1660  
1665 1668 1669 1687 1702 1703 1704 1705 1706 1762 1769  
1781 1806 1873 1892 1894 1895 1899 1963 1970 1977 1982  
2124 2126 2422 2426 2445 2520 2554 2563 2571 2584 2585  
2603 2642 2657 2673 2707 2718 2738 2759 2791 2792 2793  
2946 2964 2969 2971 2985 2998 3060 3078 3086 3360 3468  
3469 3482 3503 3507 3508 3728 3769 3985 3989 4002 4004  
4194 4207 4221 4261 4267 4274 4315 4376 4377 5358 5596  
5626 5699 5760 5774 5785 5790 5808 5847 5848 5874 5926  
5945 5947 5979 5980 5982 5983 5985 5986 5987 5988 5993  
5994 5995 5997 5998 6014 6016 6024 6047 6051

## BIOLOGICAL, BLOOD

33 34 62 63 64 66 123 138 237 263 308 328 335 383 405  
476 486 489 533 542 560 570 648 657 710 730 845 862 882  
929 938 962 993 1020 1041 1086 1089 1141 1143 1206 1211  
1241 1242 1276 1305 1384 1412 1421 1436 1463 1470 1702  
1707 1708 1712 1748 1750 1766 1767 1824 1858 1948 1975  
1982 2123 2365 2503 2508 2535 2551 2563 2689 2690 2695  
2696 2733 2871 3061 3358 3503 3669 3757 3789 3808 3955  
3956 3959 4314 5386 5502 5755 5770 5972 5981 6001 6002  
6008 6067



ACTIVATION ANALYSIS-MATRIX ANALYZED

BIOLOGICAL, URINE

50 214 476 483 484 487 673 702 866 880 894 943 962 1221  
1241 1421 1702 1712 1858 1948 1964 2122 2534 2535 2551  
2558 2689 2821 3503 5382 5755 5953 5972 6001

BIOLOGICAL, OTHER FLUIDS

178 208 385 418 450 476 560 772 788 932 1141 1206 1287  
1392 1421 1645 1712 1747 1751 1824 1948 2125 2440 2535  
2558 2733 2977 3503 3710 3957 5416 5472 5929 5972 6005  
6009 6052 6055 6064

BIOLOGICAL, SOFT TISSUE, INCLUDES HAIR, NAILS, AND HOOFs

33 34 48 123 124 138 144 154 178 198 208 254 259 263  
308 310 317 328 333 335 374 414 442 481 483 484 504 512  
513 533 535 542 550 652 667 702 705 706 709 710 717 725  
819 844 848 852 883 911 944 1001 1041 1078 1086 1088  
1097 1100 1134 1172 1206 1225 1233 1250 1271 1276 1278  
1310 1311 1326 1392 1400 1411 1412 1421 1439 1442 1452  
1552 1563 1650 1692 1702 1712 1748 1752 1797 1858 1873  
1893 1914 1920 1925 1937 2121 2308 2403 2434 2455 2503  
2539 2546 2548 2551 2572 2588 2638 2639 2699 2719 2730  
2756 2776 2786 2789 2797 2819 2853 2871 2881 2938 2942  
2943 2999 3062 3098 3334 3388 3468 3503 3736 3745 3949  
3956 3982 4190 4227 4232 4240 4281 4283 4374 5366 5386  
5390 5393 5394 5435 5701 5727 5851 5869 5927 5944 5976  
5977 5999 6006 6007 6011 6012 6013 6015 6063 6069

BIOLOGICAL, BONE, TEETH

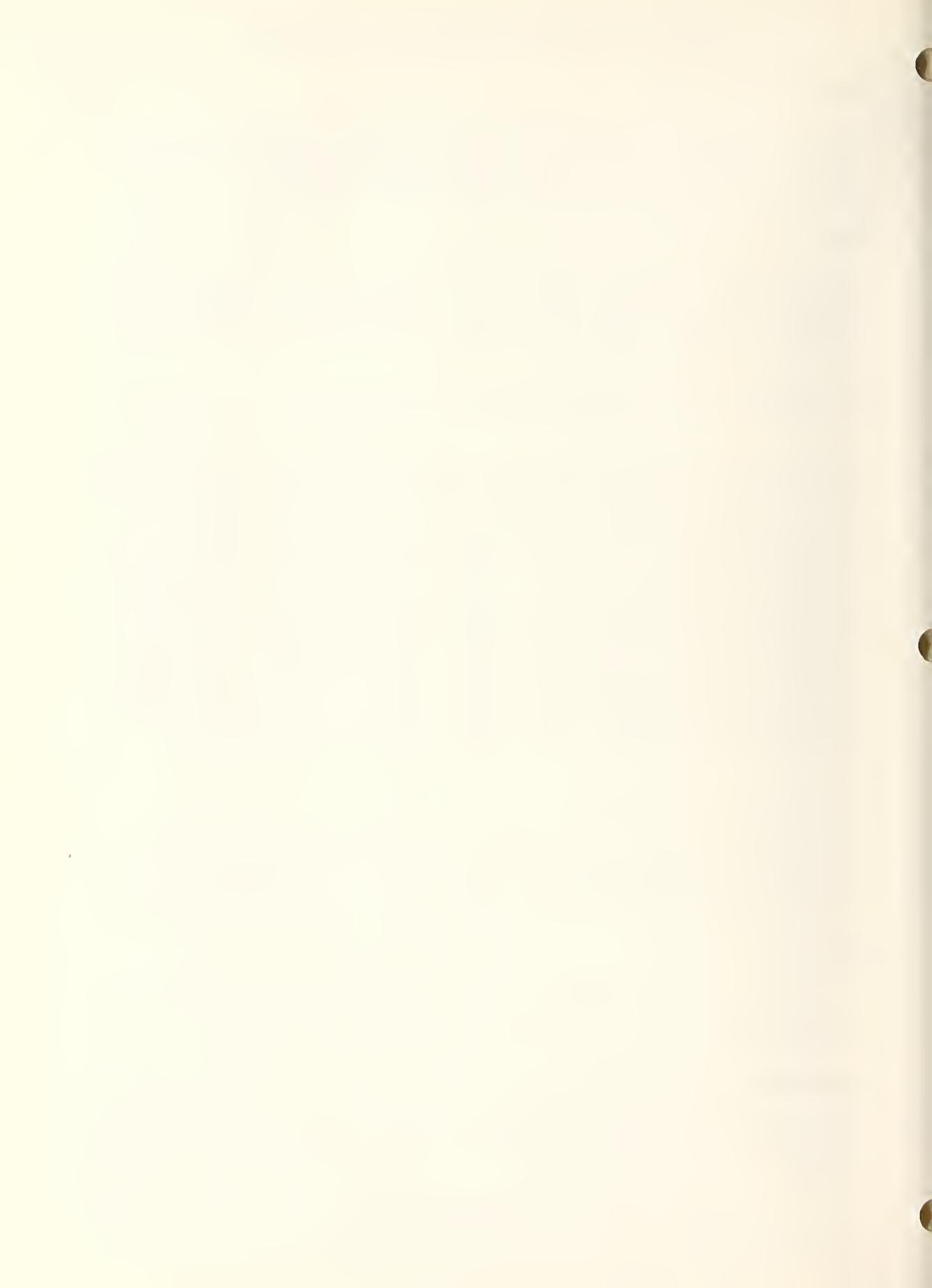
79 136 194 308 378 413 485 512 521 675 709 714 741 829  
830 856 968 1086 1100 1170 1332 1436 1439 1446 1457  
1512 1697 1752 1780 1800 1873 1980 1982 2565 2573 2629  
2633 2685 3503 3506 3725 3726 3958 3982 4319 6003 6004

BIOLOGICAL, FISH

164 165 409 751 758 1109 1172 1257 1395 1778 2668 2973  
5746 6023

BIOLOGICAL, SHELL FISH

164 165 409 723 1087 1094 1257 1277 1395 1401 1457 1781  
5726



ACTIVATION ANALYSIS-MATRIX ANALYZED

BIOLOGICAL, SEAWEED

164 165 409 810 1109 1727 2546 2732

BIOLOGICAL, LEAVES, NEEDLES

67 310 636 702 709 740 953 1086 1230 1234 1436 1930  
2501 2773 2892 3391 3509 3791 4269 5370 5935

BIOLOGICAL, WOOD

333 1100 1114

BIOLOGICAL, OTHER BOTANICAL

62 63 65 66 160 317 454 459 520 533 553 571 636 702 709  
723 740 773 804 810 811 866 880 933 934 1087 1108 1230  
1274 1361 1484 1748 1749 1782 1805 1873 1970 1971 2347  
2736 2876 2892 2929 3092 3341 3391 3508 3713 3714 3747  
3791 3982 3991 4320 5327 5445 5571 5725 5924 5925 5978  
5990 5991 6080

CELLULOSE • TEXTILES

317 333 402 573 717 1007 1057 1073 1087 1110 1114 1239  
1472 1478 1583 1584 1888 2481 2493 2655 2803 5872

CEMENT

1917 2323 2934

CHROMATOGRAPHY AND ION EXCHANGE • PAPER, RESINS, REAGENTS, ETC,

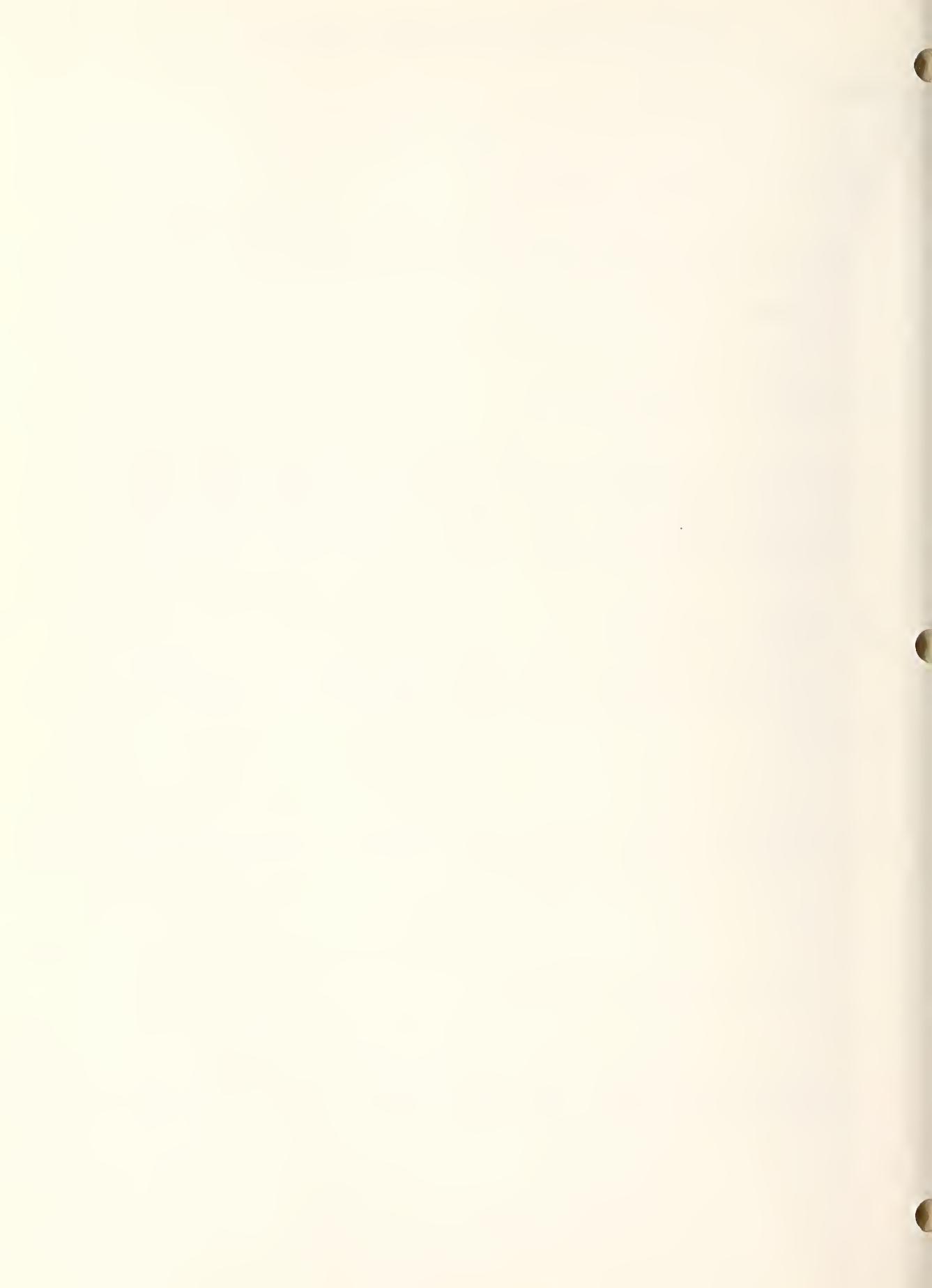
511 1664 2141 4406 5407 5930

CLAYS

289 433 518 1385 1495 3370

CUAL

57 113 477 612 1067 1414 1646 1798 1889 1898 2504 2507  
2622 2933 2941 3076 3803 5621



ACTIVATION ANALYSIS-MATRIX ANALYZED

CORROSION PRODUCTS

97 482 4327

DETERGENTS

309

DRUGS

90 573 810 1071 1203 1205 1314 1746 2588 2648 2739 2805  
4329 5751 5756

DUSTS

1036 1569 1606 1962

FOOD

339 476 588 676 699 702 705 707 709 935 963 1024 1057  
1096 1788 1890 1913 1982 2563 2569 2689 2701 2736 2838  
3092 3505 4323 5951 5984 5996 6024

FORENSIC, GENERAL

112 134 444 520 551 706 763 1031 1056 1149 1290 1689  
2517 2603 2605 2607 2647 2673 2765 2958 2959 3486 3968  
4006 5401 5710 6018 6020 6021 6027 6028 6030 6042

FORENSIC, HAIR AND FINGERNAILS

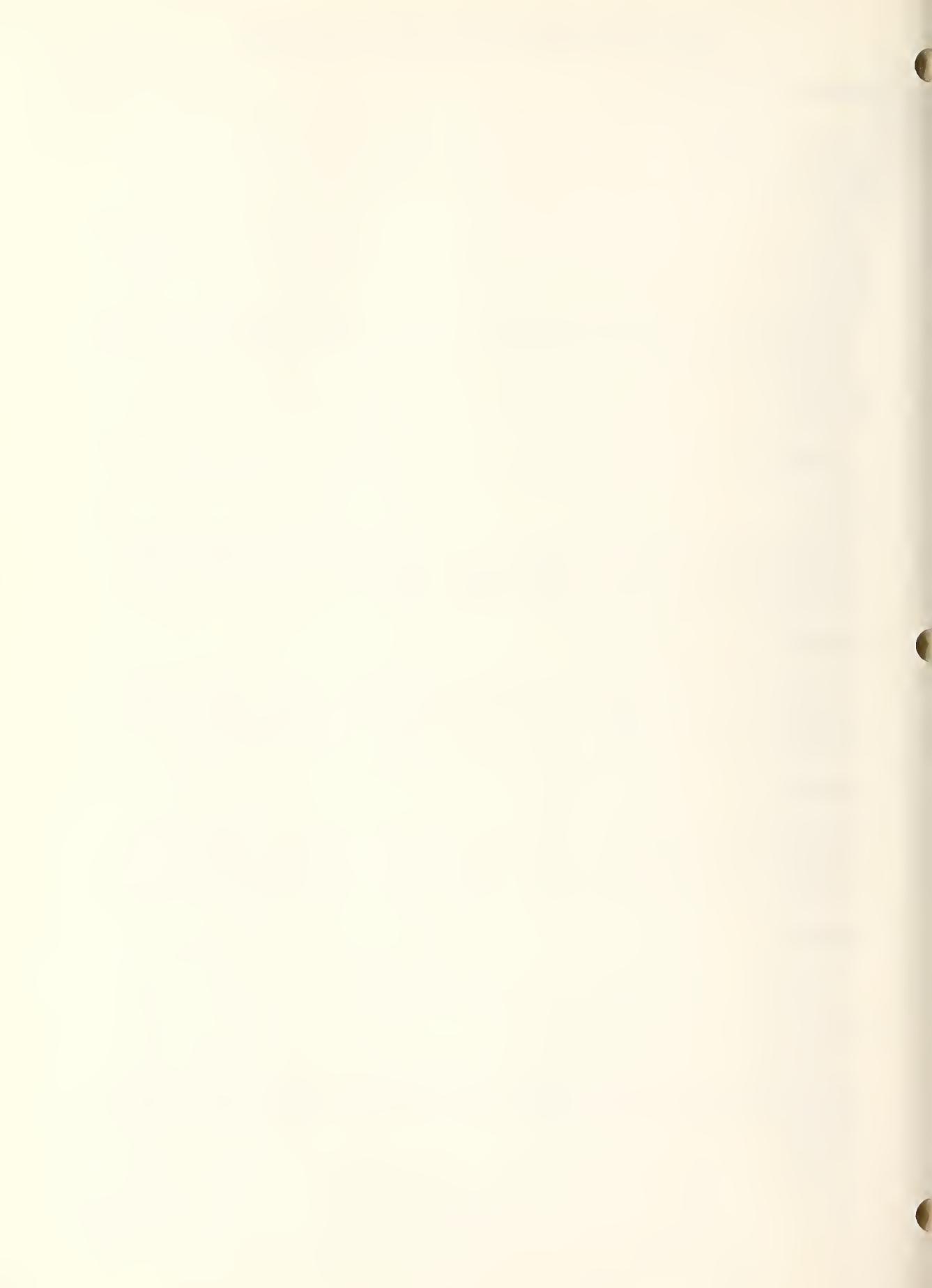
134 198 520 565 584 593 625 702 706 802 970 1422 1734  
1736 1737 1928 2143 2517 2548 2570 2607 2765 2926 2958  
3486 3708 4380 5358 5869 6019 6037 6038 6039 6040 6041

FORENSIC, POISONS

706 2517 2605 2607 2765 3486 5401

FORENSIC, GUNPOWDER RESIDUE

183 1034 1442 1732 2145 2464 2517 2605 2607 2765 2782  
2790 2791 2792 2793 3065 3486 3504 5401 5750 6034 6035  
6036



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## FORENSIC, TRACE IDENTIFICATION

1035 1635 1715 1736 2144 2517 2605 2607 2645 2647 2648  
2765 2782 2790 2791 2792 2793 2931 3486 3504 4263 4286  
4329 5401 5543 6026 6029 6032 6033 6045 6048

## GLASS

274 275 407 1117 1472 5566 5919 5933 5968 6033

## INORGANIC COMPOUNDS (GENERAL)

79 82 130 196 200 205 313 437 438 499 514 519 631 659  
670 702 712 824 825 845 986 1014 1028 1067 1072 1112  
1116 1129 1202 1228 1248 1351 1404 1437 1510 1528 1711  
1713 1720 1725 1774 1899 1939 1968 2052 2498 2543 2546  
2845 2922 2989 4214 5499

## IN-STREAM ANALYSIS

169 206 207 219 445 632 791 1055 1302 2006 2410 3753  
4392 5578 5581 5748 5764

## ISOTOPIC ANALYSIS

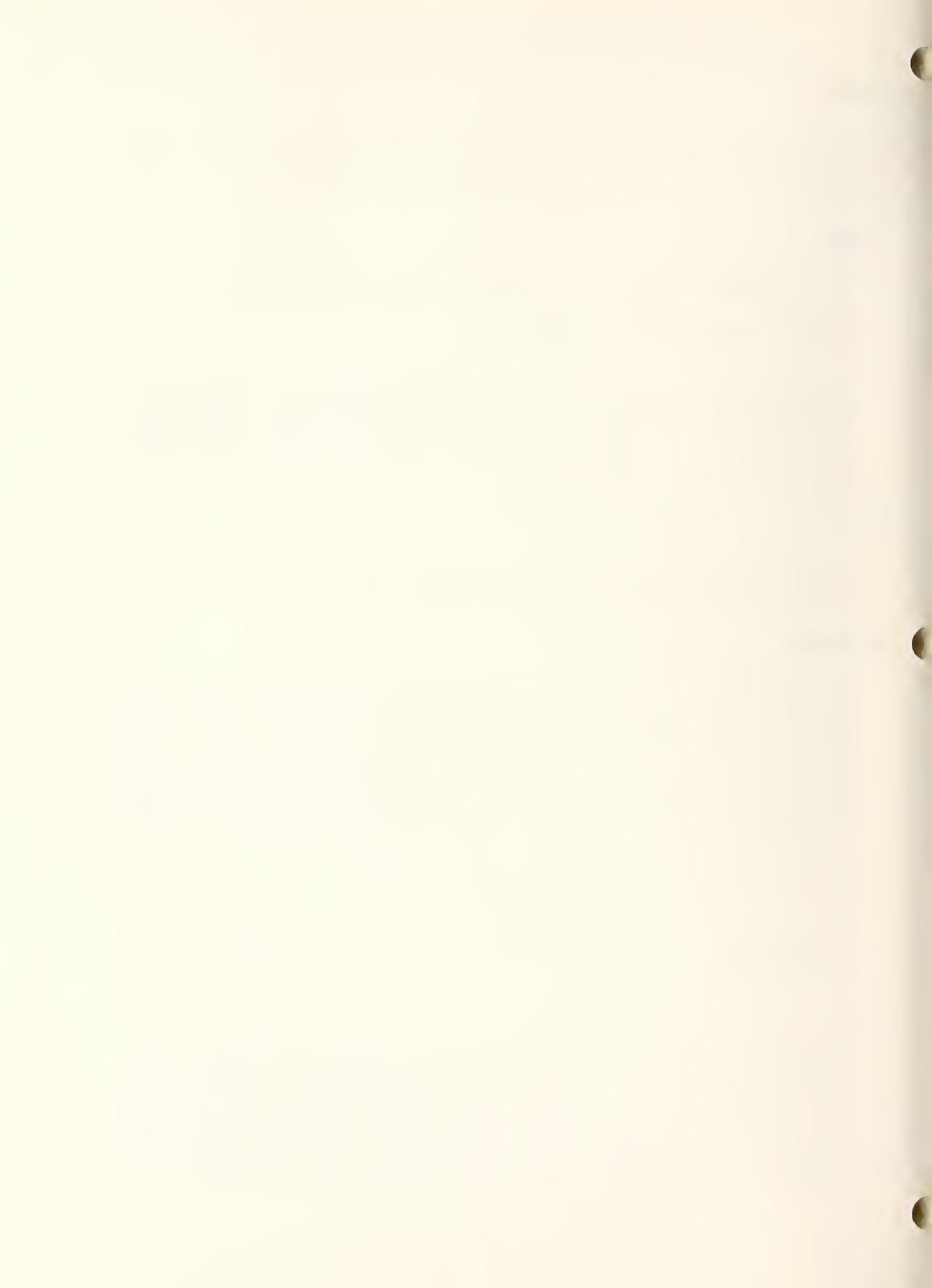
53 100 110 114 137 160 233 256 261 288 321 332 347 421  
448 449 517 530 737 770 782 784 841 926 1012 1019 1023  
1059 1062 1070 1079 1101 1357 1362 1377 1415 1416 1427  
1442 1457 1532 1576 1668 1678 1704 1706 1726 1811 1857  
1865 1872 1906 1914 1921 2303 2473 2540 2543 2546 2618  
2627 2634 2687 2695 2727 2731 2737 2754 3074 3081 3102  
3711 3959 3965 4208 5295 5435 5449 6043 6073

## LIQUIDS, EXCLUDING WATER AND SEA WATER

279 573 1107 1351 1361 1374 1442 1879 1882 2511 3374  
3379 3393

## METALS AND ALLOYS (GENERAL)

3 80 241 264 279 346 408 426 453 500 591 631 655 703  
704 707 712 755 756 805 806 819 821 824 921 1030 1060  
1067 1088 1093 1103 1113 1124 1190 1193 1321 1361 1438  
1441 1460 1522 1604 1739 1849 2480 2550 2562 2662 2678  
2686 2802 2922 2936 2949 2970 2978 3070 3090 3502 3746  
3768 3977 4196 4197 4211 4215 5426 5772 5932 5968



## ACTIVATION ANALYSIS-MATRIX ANALYZED

## METEORITES AND TEKTITES

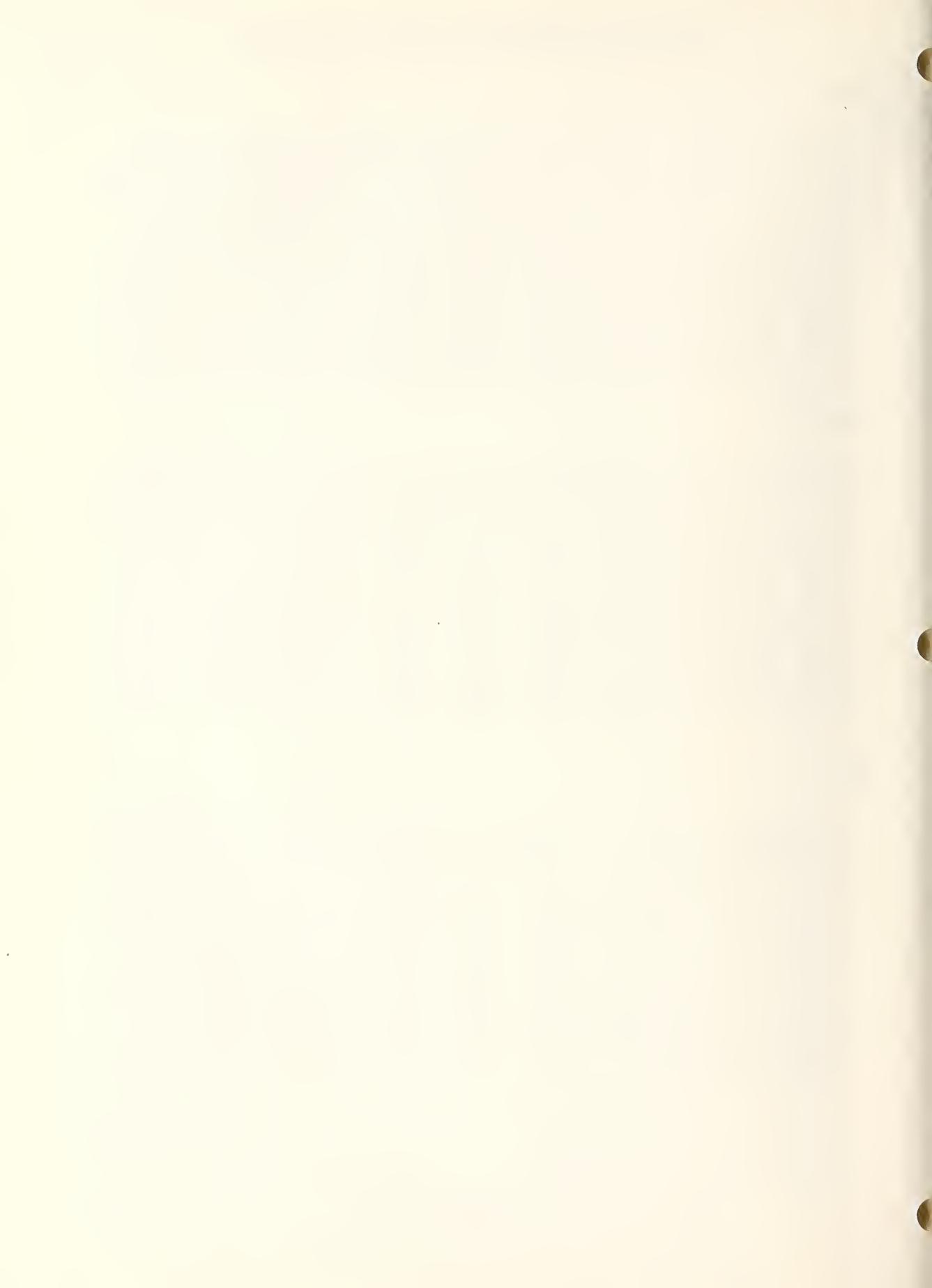
9	26	39	40	41	42	84	85	86	96	142	143	145	146	158	186
187	199	209	212	217	226	268	269	410	411	412	434	436	439		
469	470	490	493	528	529	548	563	587	616	683	698	721	736		
768	776	778	779	817	964	988	1002	1010	1012	1017	1022				
1076	1101	1117	1122	1145	1155	1168	1189	1192	1172	1173	1174				
1176	1187	1209	1210	1212	1214	1222	1251	1275	1297	1307					
1323	1356	1381	1386	1431	1433	1486	1493	1494	1498	1502					
1566	1571	1634	1693	1718	1719	1793	1813	1954	1959	2296					
2338	2474	2506	2509	2641	2735	2774	2991	3352	3467	3476					
3774	4253	4268	4290	5262	5307	5343	5365	5448	5591	5716					
5717	5718	5719	5720	5721	5759	5775	5884	5948	5958	6050					

## MINERALS

10	11	15	72	73	96	98	104	120	121	122	151	171	189	222
224	225	239	240	249	250	354	360	366	380	393	397	429	461	
469	478	486	522	548	562	683	695	735	739	742	750	783	841	
924	941	1015	1016	1081	1082	1083	1092	1094	1107	1109				
1137	1178	1213	1216	1280	1293	1294	1356	1381	1393	1403				
1427	1431	1432	1433	1435	1454	1457	1458	1460	1466	1474				
1480	1495	1513	1518	1527	1528	1538	1549	1550	1566	1652				
1678	1817	1859	1863	1885	1906	1952	1970	1978	2318	2354				
2431	2526	2636	2644	2669	2684	2688	2690	2720	2747	3366				
3367	3375	3386	3387	3395	3414	3460	3501	3740	3766	4282				
5320	5325	5343	5350	5406	5592	5705	5706	5707	5767	5852				
5934	5949	5961	5962	5963	5965	6074								

## ORES

14	120	147	169	170	172	210	213	249	265	266	289	291	301
329	349	380	445	479	546	554	562	612	616	621	630	665	677
695	717	728	768	819	855	908	971	978	984	1011	1025	1047	
1081	1082	1083	1102	1111	1137	1150	1162	1190	1195	1196			
1280	1334	1340	1356	1374	1413	1435	1458	1521	1527	1550			
1551	1553	1554	1555	1556	1581	1611	1623	1651	1671	1677			
1857	1859	1886	1906	1955	1961	1978	2283	2348	2350	2444			
2499	2688	2690	2747	2801	2888	2904	2940	2965	2966	3063			
3076	3105	3342	3362	3371	3372	3373	3374	3376	3379	3385			
3395	3460	3462	3464	3473	3501	3739	3760	3803	3948	3976			
4005	4214	4307	4309	4311	5323	5356	5428	5551	5581	5761			
5767	5950	6054											



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## ORGANIC COMPOUNDS

80 192 205 323 403 498 519 591 696 702 709 711 827 839  
863 871 895 921 928 986 1042 1045 1071 1072 1084 1096  
1103 1112 1116 1138 1139 1218 1238 1259 1288 1437 1455  
1456 1462 1472 1478 1479 1491 1509 1510 1519 1529 1534  
1539 1595 1617 1655 1670 1694 1728 1743 1744 1745 1819  
187n 1896 1902 2379 2433 2519 2524 2543 2562 2661 2794  
2921 3033 3364 3365 3482 3505 3709 3716 3723 3729 3778  
3954 3986 4205 4216 5326 5420 6085

## ORGANOMETALLIC COMPOUNDS

2519 2543 3075 5357

## PARTICLES

43 735 916 1036 1326 1439 1460 1606 1902 2976

## PESTICIDES

702 1056 2790 3505 3791 5975

## PETROLEUM AND DERIVATIVES

80 89 107 567 702 797 1088 1172 1254 1443 1535 1565  
1572 1601 1738 1789 1815 1896 1899 2377 2452 2518 2619  
2651 2705 2740 3027 3028 3365 3505 3752 427n 4285 5383  
5510 5923 5970

## PHOTOGRAPHIC FILM AND MATERIAL

334 738 3394

## PLASTICS

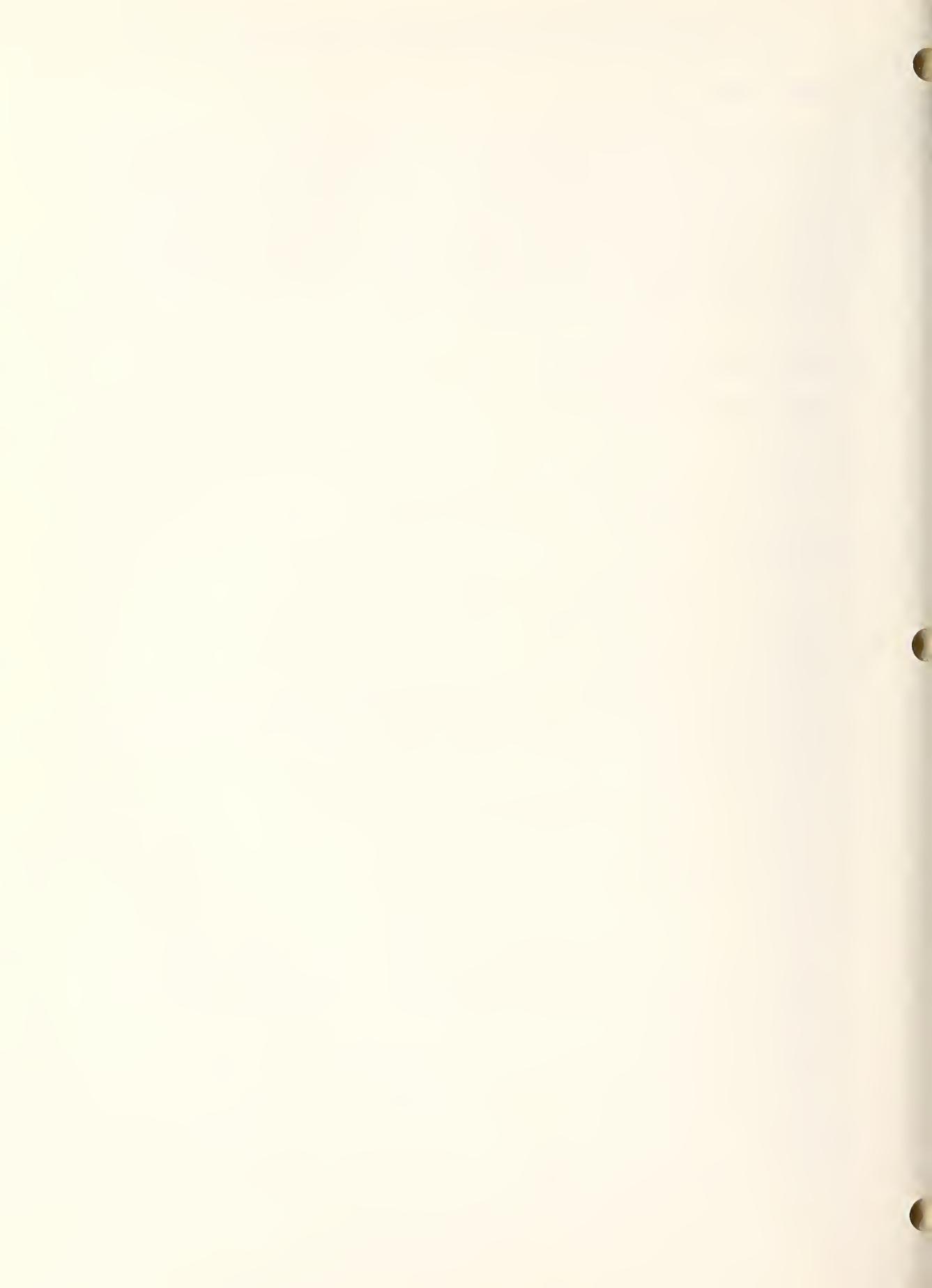
21 37 105 605 702 860 942 977 1065 1088 1097 1492 1514  
1519 1764 1831 2518 2657 2689 2711 2766 3781 3973 4209

## PROCESS CONTROL

1586 1590 2666 5969

## PROTEIN

134 709 1342 2129 5395 5405 6000 6001 6068



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## QUARTZ

205 302 623 689 799 888 927 1065 1495 1505 1610 1655  
2717 2728 3369 3759 5353 5402 5865 6062

## REACTOR MATERIALS

234 349 419 708 717 726 735 974 1042 1171 1192 1204  
1357 1902 5765

## REAGENTS

300 1069 1072 1135 1136 1265 1636 1862 2518 2717 5335

## REFRACTORIES AND CERAMICS

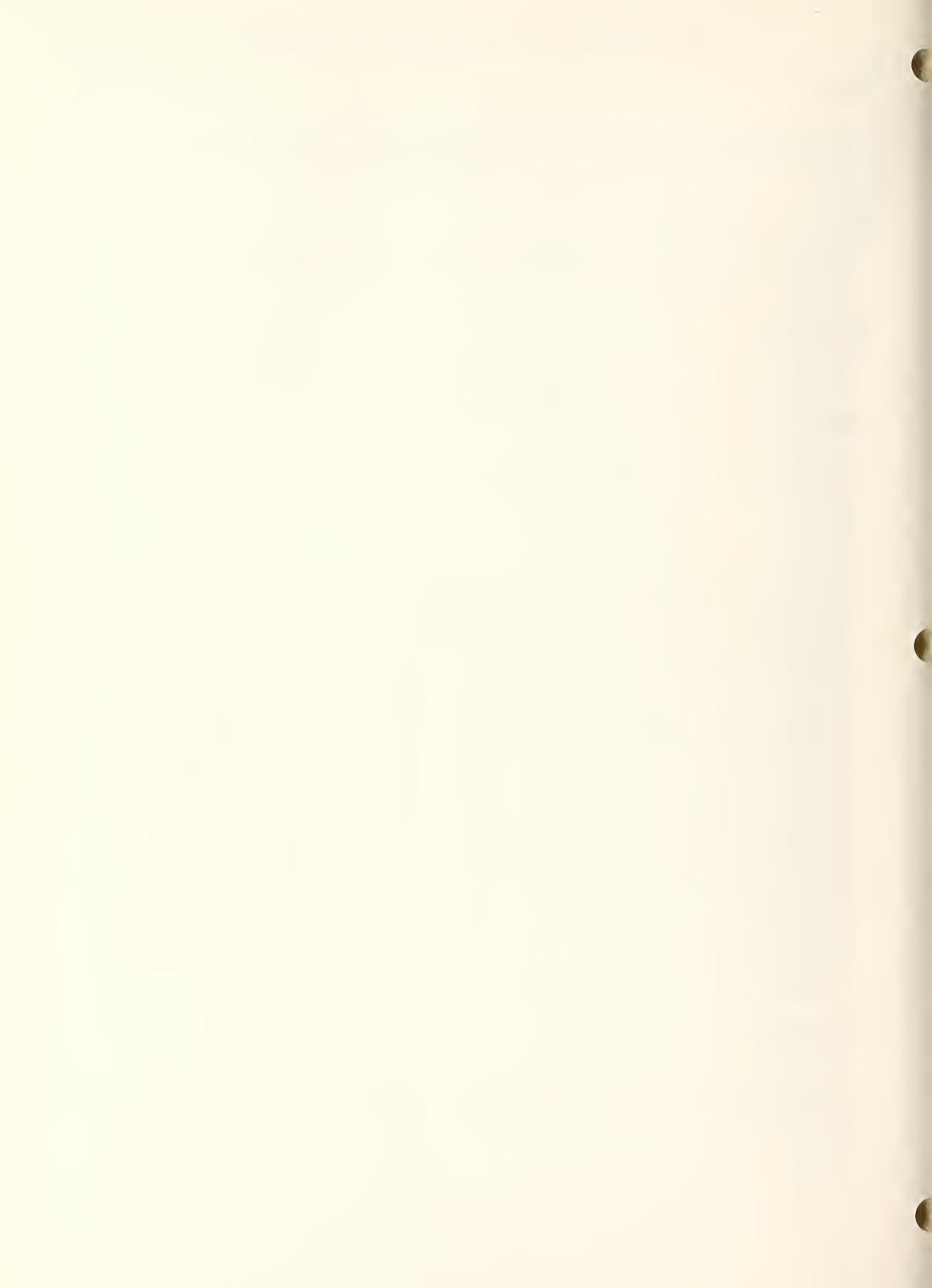
1540 2664 3488 6071

## ROCKS

9 10 11 26 96 98 120 199 204 212 240 257 269 285 301  
361 362 363 365 367 455 461 462 470 478 522 523 524 525  
526 538 548 555 572 575 580 587 595 600 616 656 669 695  
724 728 739 742 748 750 779 810 819 820 841 909 922 941  
949 953 969 984 999 1002 1007 1022 1025 1047 1076 1080  
1081 1082 1083 1094 1107 1109 1121 1125 1128 1145 1169  
1180 1182 1185 1201 1209 1210 1213 1229 1293 1294 1297  
1340 1356 1374 1383 1385 1393 1416 1419 1431 1432 1433  
1445 1449 1454 1474 1480 1495 1518 1531 1537 1538 1550  
1558 1559 1571 1585 1596 1615 1678 1693 1711 1718 1727  
1812 1817 1835 1857 1885 1887 1899 1902 1911 1930 1953  
1960 1970 2146 2283 2340 2348 2354 2477 2447 2453 2603  
2636 2641 2669 2684 2694 2705 2720 2731 2735 2747 2750  
2763 2839 2902 2965 2966 2991 3079 3081 3088 3089 3366  
3367 3368 3371 3387 3395 3414 3461 3462 3470 3481 3501  
3560 3774 3780 3790 3803 3961 3987 4192 4195 4242 4262  
4278 4290 4305 4388 5322 5328 5406 5428 5436 5439 5449  
5501 5713 5729 5731 5739 5743 5747 5767 5852 5867 5884  
5934 5936 5939 5959 5960 6079

## SEDIMENTIS, MARINE

9 204 212 470 471 477 616 810 819 961 964 1002 1094  
1128 1385 1727 1970 5771 5776



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## SEMI-CONDUCTOR MATERIALS

149 216 457 473 509 544 583 702 707 785 838 888 892 894  
1063 1118 1133 1135 1253 1286 1354 1438 1441 1823 1855  
1862 1907 1930 2523 3350 3485 3514 3993 3995 4153 4321  
5399 5437 5703 5928 5931 6053

## SUILS + FERTILIZERS

67 98 175 329 454 616 804 810 848 904 905 991 1011 1131  
1195 1196 1361 1419 1515 1642 1782 1794 1874 1896 1899  
1970 2552 2553 2590 2603 2705 3005 3091 3093 3345 5697  
5990

## SPACE APPLICATIONS, LUNAR

253 545 658 996 1033 1052 1284 1721 1785 1912 2364 2684  
3461 4198 4289 5261 5384 5440

## STABLE TRACERS

1048 1799 5966 5967 5992 6010 6058

## STEEL AND CAST IRONS

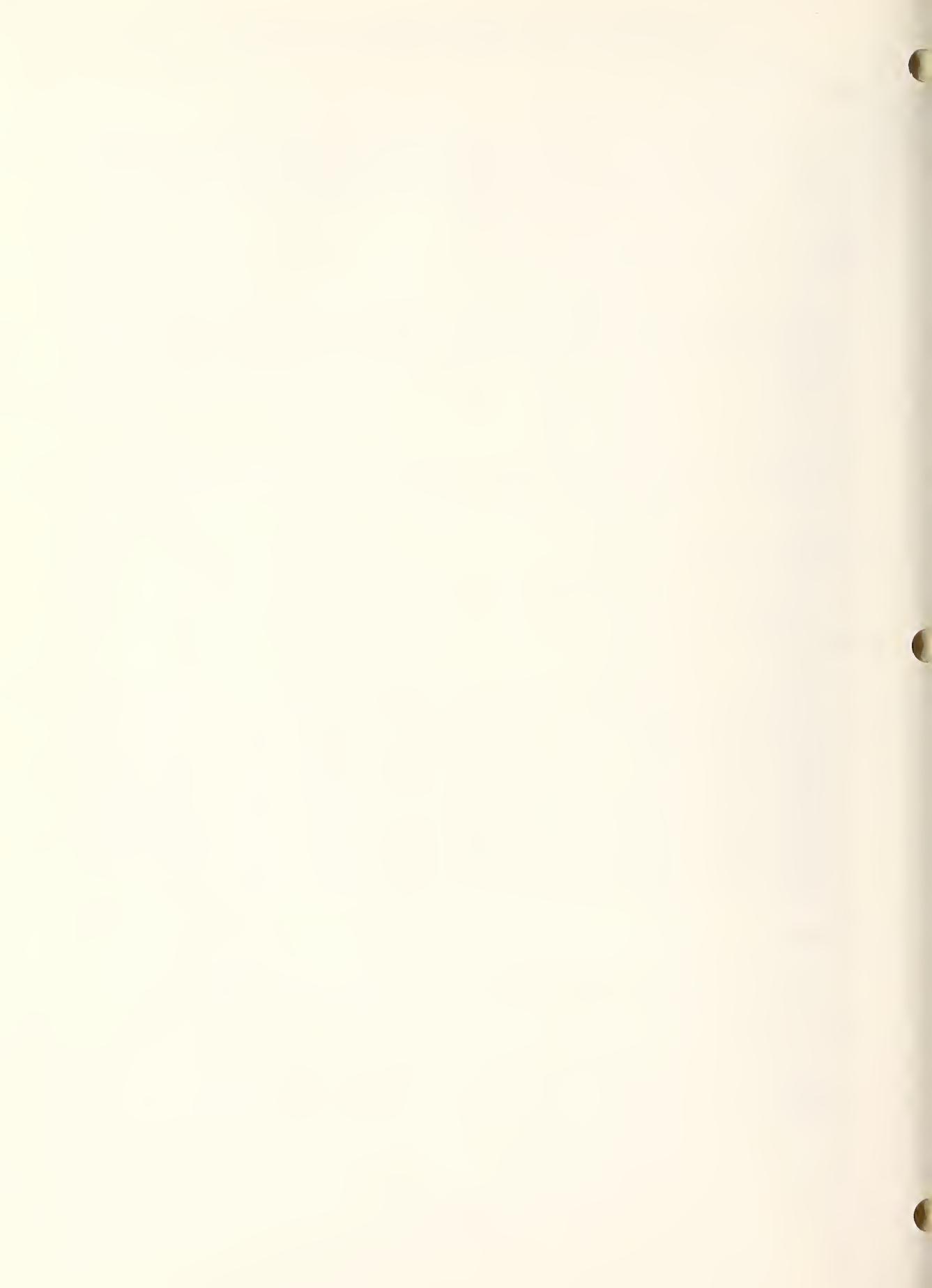
87 88 118 119 223 304 305 351 353 356 357 417 428 552  
581 620 628 687 690 717 718 810 893 903 915 940 990  
1026 1035 1093 1097 1102 1124 1201 1204 1274 1363 1367  
1394 1426 1434 1453 1468 1473 1522 1537 1541 1589 1590  
1598 1642 1711 1717 1740 1760 1773 1786 1821 1837 1844  
1875 1910 1911 1950 1951 1956 2418 2429 2507 2526 2537  
2542 2580 2596 2611 2615 2649 2652 2678 2764 2795 2846  
2983 3357 3466 3560 3746 3750 3981 3997 4413 5238 5378  
5380 5389 5408 5450 5451 5452 5708 5766 6086

## SURFACE ANALYSIS

29 423 1915 2562 2948 3070 3992 4000 5543 6066

## THIN FILMS

508 654 1060 1158 1380 1496 1899 2658 3064 3126 3973  
3992



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## WATER

54 55 56 125 126 206 207 250 290 300 333 686 735 843  
853 868 937 959 981 1008 1021 1027 1062 1070 1109 1129  
1135 1181 1190 1217 1237 1255 1266 1294 1351 1361 1435  
1497 1528 1532 1725 1758 1814 1857 1874 1906 1973 1979  
2157 2540 2543 2551 2656 2665 2666 2673 2689 2693 2717  
2800 2852 2873 2930 3084 3483 3808 3962 3965 3969 4258  
4272 4302 4412 5749 5858 5919 5920 6016

## WATER, SEA

164 235 236 422 475 477 492 586 614 723 810 1125 1127  
1266 1345 1385 1402 1457 1688 1727 1874 1906 1945 2157  
2511 2673 2693 2790 2791 2792 2793 2848 2984 3960 3969  
4219 4244 4255 4291 4381 5359 5387 5397 5777 5873

## WELL LOGGING

695 780 786 1061 1430 1554 1555 1559 1680 1683 1684  
1685 1686 1772 1822 1843 3462 4252 5552 5554 5555 5577

## LITHIUM AND ITS ALLOYS AND COMPOUNDS

467 869 1351 1568 2369 2726 3986

## AMMONIUM COMPOUNDS AND ALKALI METALS AND THEIR ALLOYS AND COMPOUNDS (EXCLUDING LITHIUM)

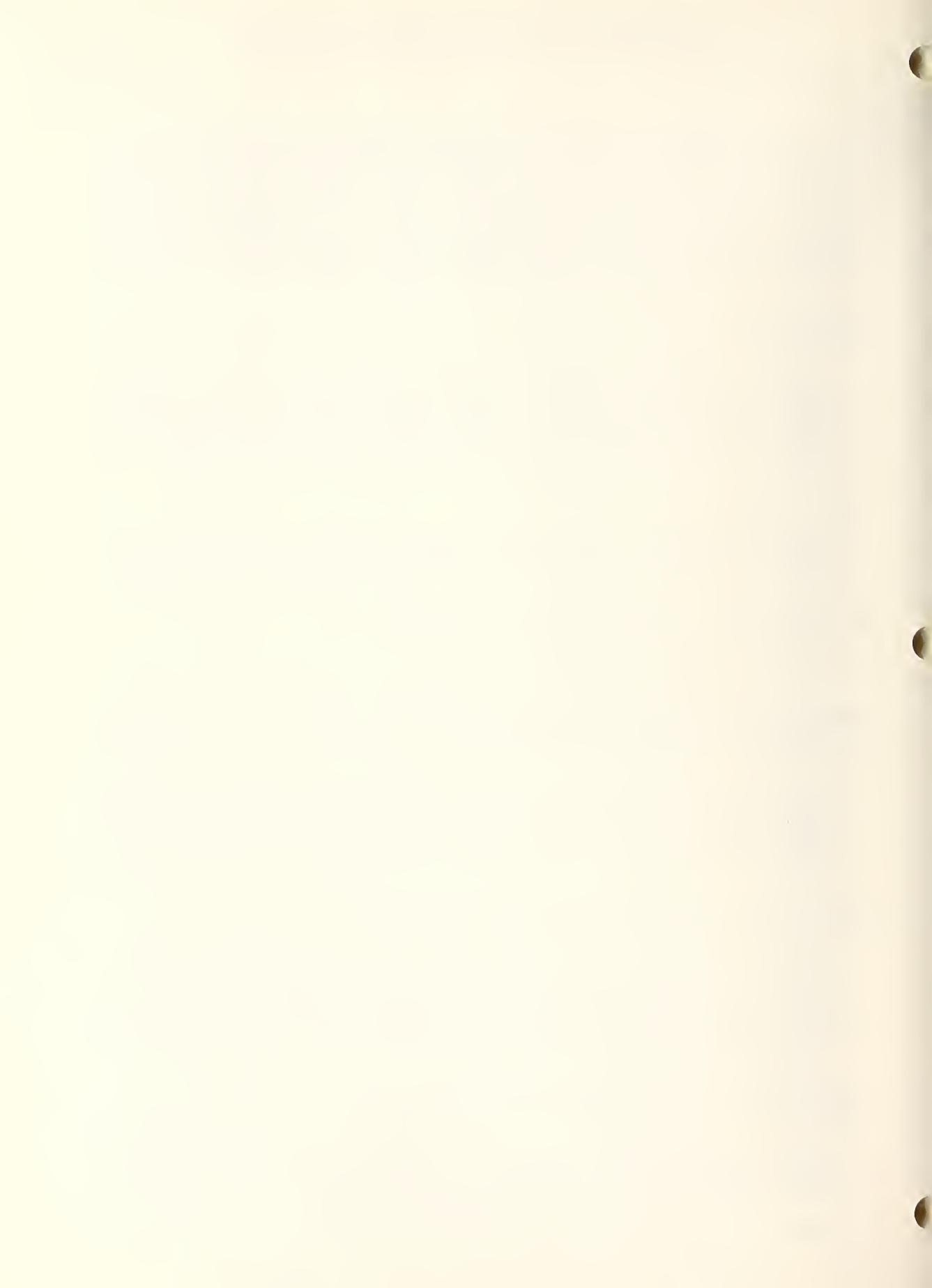
93 131 133 460 635 708 729 852 869 1123 1190 1197 1281  
1292 1330 1424 1514 1560 1761 1801 1816 1900 2596 2598  
2726 2734 2758 2804 3085 3393 4209 4386 5341 5410 5422  
6044

## BERYLLIUM AND ITS ALLOYS AND COMPOUNDS

45 46 49 58 69 74 105 108 109 291 314 391 472 578 596  
623 637 640 789 814 849 850 983 1043 1081 1083 1104  
1177 1189 1191 1226 1235 1263 1318 1347 1351 1361 1429  
1442 1528 1637 1710 1730 1741 1816 1861 1871 1904 2505  
2549 2777 3073 3727 3976 5593

## MAGNESIUM AND ITS ALLOYS AND COMPOUNDS

22 300 635 899 1190 1231 1274 1351 1398 1483 1801 2798  
3357 3488 3981 4201 5941



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## CALCIUM, STRONTIUM AND BARIUM AND THEIR ALLOYS AND COMPOUNDS

635 1188 1466 1725 1726 1816 1872 2511 3396 4276 5353

## BORON AND ITS ALLOYS AND COMPOUNDS

1136 1816 3369 4260

## ALUMINUM

4 6 7 80 102 103 101 166 167 252 300 317 349 358 371  
398 416 417 432 531 533 544 578 662 688 708 726 735 767  
781 790 806 812 814 815 821 834 851 866 879 880 881 883  
895 920 979 982 1042 1088 1097 1098 1099 1226 1245 1264  
1273 1325 1338 1339 1398 1406 1420 1442 1469 1473 1526  
1564 1591 1598 1618 1632 1700 1710 1723 1795 1804 1856  
1901 1929 1960 1974 2358 2550 2559 2579 2597 2601 2628  
2654 2683 2769 2950 3059 3382 3396 3721 3722 3724 3771  
3791 3797 3992 4203 4298 5369 5409 5432 5729 5863 5865  
5919 5921 5922 6024

## ALUMINUM ALLOYS AND COMPOUNDS

78 83 161 234 238 384 400 451 533 806 823 853 864 899  
987 989 1093 1099 1140 1167 1190 1220 1274 1725 2865  
2927 2956 3487 4211 5353

## TITANIUM AND ITS ALLOYS AND COMPOUNDS

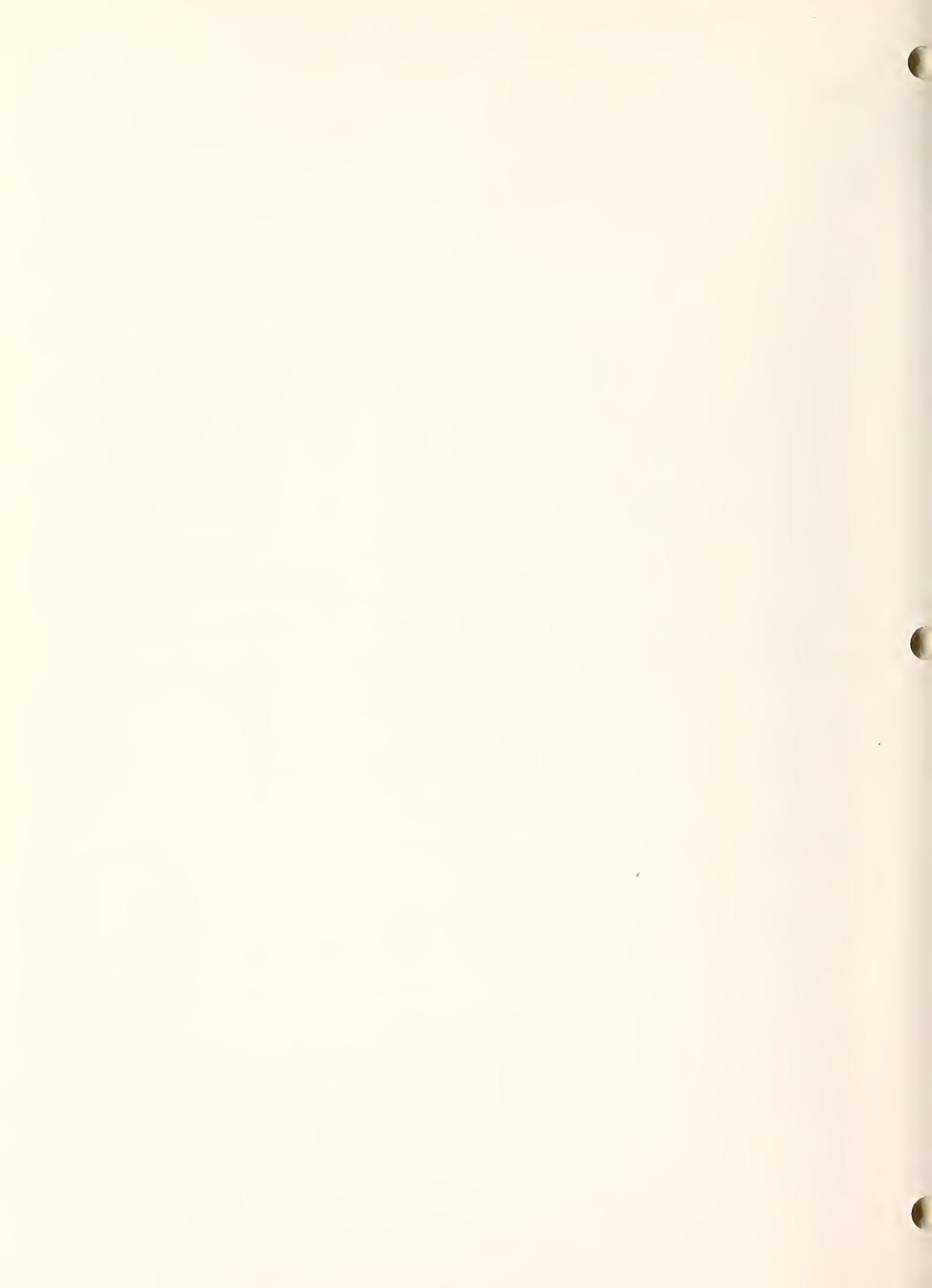
51 75 81 291 319 1067 3357 3783 3799 3981 5431 5781  
6065

## ZIRCONIUM AND ITS ALLOYS AND COMPOUNDS

24 176 231 252 287 291 319 325 375 494 641 726 760 762  
814 821 851 879 895 899 967 1003 1065 1067 1097 1190  
1236 1309 1377 1410 1442 1471 1537 1573 1574 1578 1612  
1642 1646 1699 1709 1765 1931 2381 2550 2970 3721 3996  
4000 5177 5515 5517 5938

## HAFNIUM AND ITS ALLOYS AND COMPOUNDS

176 232 507 1375 1481 1537 1765 2381 5938



## ACTIVATION ANALYSIS-MATRIX ANALYZED

### NIOBIUM AND ITS ALLOYS AND COMPOUNDS

51 105 265 266 319 641 896 910 1102 1165 1487 1709 1759  
1829 1840 1966 1983 2502 3059 3346 5781 5782 5786

### TANTALUM AND ITS ALLOYS AND COMPOUNDS

51 912 1045 1102 1165 1232 1442 2502

### CHROMIUM, VANADIUM AND MANGANESE AND THEIR ALLOYS AND COMPOUNDS

130 585 1289 1333 1501 1570 2473 5385 6065

### MOLYBDENUM AND ITS ALLOYS AND COMPOUNDS

205 331 1760 1803 2381 3990 5321 5938 6071

### TUNGSTEN AND ITS ALLOYS AND COMPOUNDS

116 205 242 955 980 1045 1227 1283 1340 1592 1597 1842  
2381 3775 3810 3990 4231 5444 5732 5740 5938 6071

### IRON AND ITS ALLOYS AND COMPOUNDS (EXCLUDING STEELS AND CAST IRONS)

4 5 8 118 119 130 140 166 167 179 271 319 401 443 452  
490 502 516 537 544 578 662 688 744 767 851 879 896 906  
1045 1067 1125 1150 1219 1226 1267 1298 1313 1339 1344  
1375 1442 1621 1770 1875 1910 1938 1965 2358 2644 2658  
2744 3785 3975 4189 4322 5336 5349 5430 5728 5954

### COBALT AND ITS ALLOYS AND COMPOUNDS

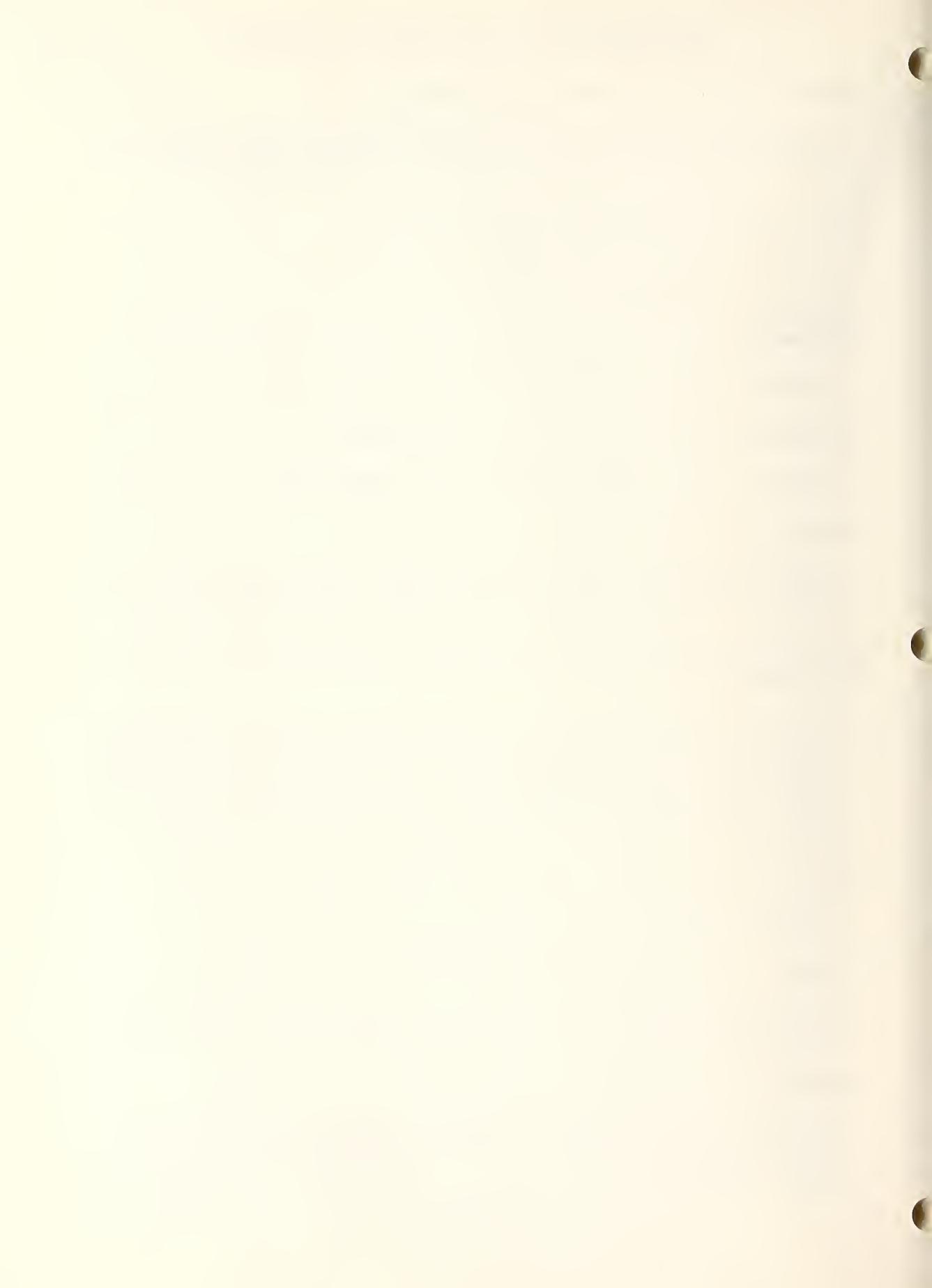
130 545 823 1156 1167 1828

### NICKEL AND ITS ALLOYS AND COMPOUNDS

28 544 635 662 852 892 1009 1124 1167 1262 1442 1613  
1827 2658 3976 5712

### CUPPER AND ITS ALLOYS AND COMPOUNDS

130 153 384 589 754 851 956 995 1004 1067 1190 1299  
1375 1378 1477 1728 1763 1896 2537 2550 2887 3418 4277  
4308 5403 5415



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## ZINC AND ITS ALLOYS AND COMPOUNDS

31 32 44 117 141 180 202 229 272 360 584 608 635 798  
832 957 1000 1018 1398 1633 1689 1763 2358 2525 2683  
2723 2724 2725 2796 3084 3994 4303 5447 5922 5955

## GALLIUM, INDIUM AND THALLIUM AND THEIR ALLOYS AND COMPOUNDS

141 229 622 825 867 894 957 1005 1045 1068 1159 1190  
1648 1675 2358 2721 3730 3731 4217 4321 5500 5703 5753  
5928 6024

## CADMIUM AND ITS ALLOYS AND COMPOUNDS

30 31 141 832 1331 1525 1936 2625

## SILVER, GOLD AND MERCURY AND THEIR ALLOYS AND CUMPOUNDS

105 130 211 344 544 589 662 774 997 1095 1106 1111 1132  
1599 1641 1787 5704

## PLATINUM AND ITS ALLOYS AND COMPOUNDS

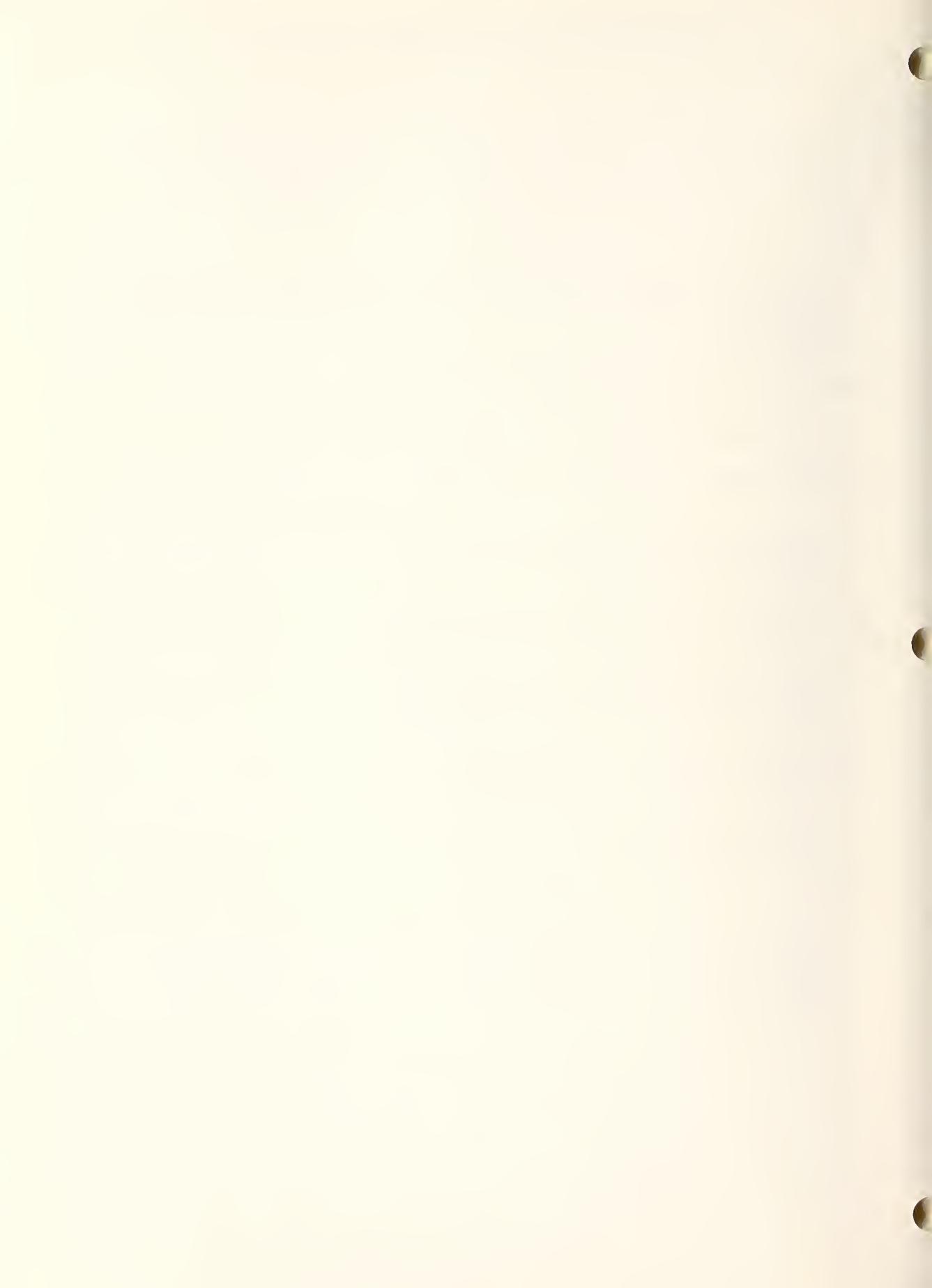
2 135 205 221 262 364 451 601 727 774 792 907 1146 1147  
1183 1184 1344 2644 3473 3810 5940

## RHENIUM, RUTHENIUM, OSMIUM, RHODIUM, IRIDIUM AND PALLADIUM AND THEIR ALLOYS AND COMPOUNDS

135 221 344 774 1119 1260 1425 1539 2515 2644 2671 3530  
5311 5363 5364 5868

## CARBON, GRAPHITE, DIAMOND

115 139 163 241 291 468 607 752 819 848 945 946 992 994  
1090 1161 1201 1269 1319 1408 1478 1618 1653 1725 1760  
1787 1818 1839 1860 2306 2717 2772 2865 3474 3995 5863  
5919 6071



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## SILICON AND ITS ALLOYS AND COMPOUNDS (EXCLUDING QUARTZ)

12 105 149 181 193 244 245 246 255 279 319 322 371 379  
390 473 491 509 544 602 606 623 662 803 805 818 831 853  
864 869 870 881 887 888 892 894 913 922 1013 1091 1118  
1121 1142 1151 1153 1166 1194 1207 1208 1223 1272 1304  
1438 1441 1546 1547 1561 1587 1588 1616 1742 1760 1820  
1831 1855 1899 1907 1930 1974 2358 2376 2386 2523 2578  
2712 2717 2923 3361 3383 3384 3514 4224 4347 5353 5399  
5429 5619 5787 5793 5931 6053 6072

## GERMANIUM AND ITS ALLOYS AND COMPOUNDS

248 370 465 474 501 544 662 689 818 892 1045 1156 1243  
1244 1291 1442 1548 1679 1862 1907 2154 2430 2497 2578  
2712 2717 3485 3732 3993 4321 5330 5752 5769 6053 6072

## TIN AND ITS ALLOYS AND COMPOUNDS

141 319 1018 1976 2358 4298

## LEAD AND ITS ALLOYS AND COMPOUNDS

105 130 141 249 384 424 608 623 692 775 798 886 950  
1064 1066 1074 1500 1533 1598 1763 1830 1841 1856 1901  
1930 2154 2643 2654 2715 2717 3396 3788 3804 5344 5345  
5381 5398

## PHOSPHORUS AND PHOSPHATES

174 902 919 936 954 1344 2680 2721 4191 4293 5438

## ARSENIC AND ANTIMONY AND THEIR ALLOYS AND COMPOUNDS

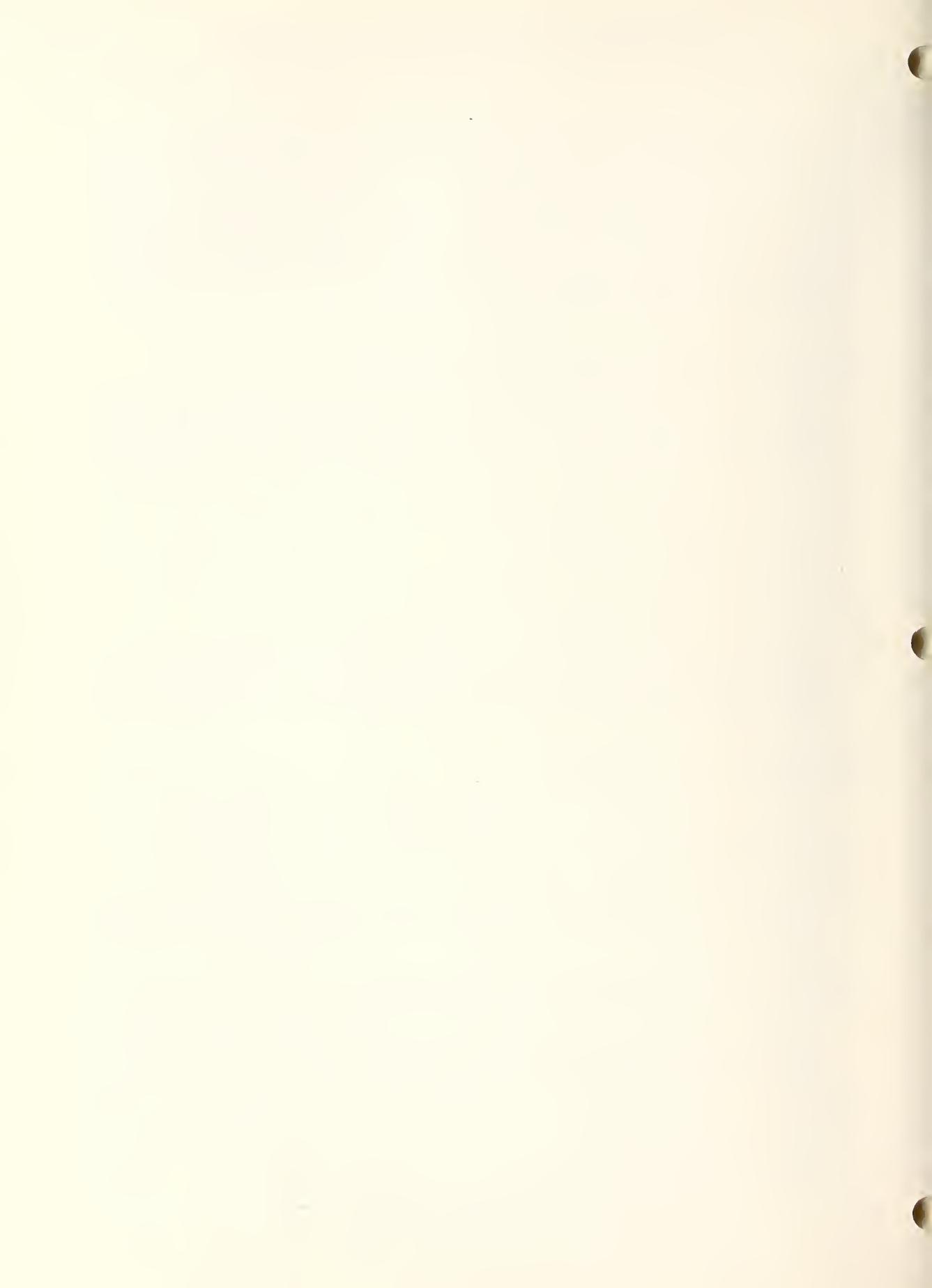
270 544 662 852 985 1441 1570 1754 2640 2713 2721 2878  
4321 5787 5928

## BISMUTH AND ITS ALLOYS AND COMPOUNDS

215 544 608 662 777 798 894 1320 1441 1542 1672 1760  
1763 1969 2610 2612 2613 2812 3396

## SULFUR

148 387 431 607 753 1654 1862



# ACTIVATION ANALYSIS-MATRIX ANALYZED

## SELENIUM AND TELLURIUM AND THEIR ALLOYS AND COMPOUNDS

330 544 662 674 858 894 1215 1240 1246 1247 1300 1373  
1520 1603 1628 1725 1760 1848 2775 2813 4254 4299 4300  
5730

## RARE EARTHS AND THEIR ALLOYS AND COMPOUNDS (INCLUDING SC + Y)

115 188 225 227 228 258 267 343 395 396 544 604 662 948  
958 960 1008 1011 1015 1016 1021 1115 1195 1196 1199  
1324 1329 1344 1403 1413 1648 1722 1802 1803 1882 1957  
1985 2480 2496 2621 2920 2932 3100 3397 3770 3810 4226  
4250 4322 4325 5308 5347 5778 5964

## HALOGENS

243 923 1725 2982

## NUBLE GASES

1004 1539 1543 4301

## URANIUM, THORIUM AND PLUTONIUM AND THEIR ALLOYS AND COMPOUNDS

52 105 151 233 252 327 346 737 771 813 822 824 952 973  
998 1019 1038 1059 1079 1109 1256 1318 1357 1391 1428  
1442 1607 1614 1653 1681 1682 1725 1730 1803 1832 1833  
1857 1865 1921 2441 2480 2496 2714 2741 2752 2753 2754  
2836 2844 2870 2882 3074 3661 3811 3821 3964 4208 4249  
4391 5368 5728 5735 5765 5863 6056 6057

## FISSION PRODUCTS

326 634 1543 4347 6057



## APPENDIX IV



## APPENDIX IV

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## ACTIVATION ANALYSIS-TECHNIQUE USED

REACTOR = THERMAL NEUTRON (N, Y)

2	4	5	6	7	9	10	11	12	13	14	15	21	22	24	26	28	30	31	32
33	34	35	39	40	41	42	43	44	47	48	50	51	54	55	56	57	59		
61	62	63	64	65	66	67	68	69	73	74	78	79	80	81	83	84	85		
86	88	89	90	93	96	97	100	101	102	103	104	107	115	116					
117	120	121	122	123	124	126	133	134	136	137	138	139	140						
141	142	143	144	145	146	147	148	149	151	154	158	161	162						
163	164	165	166	167	171	172	174	176	178	179	180	183	186						
187	193	194	197	198	200	208	209	210	211	212	214	215	216						
217	221	222	223	225	226	231	232	234	235	236	237	238	239						
240	242	243	244	245	246	248	249	250	254	255	261	262	263						
264	265	266	267	268	259	270	279	284	286	287	288	289	290						
291	300	302	304	305	310	317	319	321	322	323	325	326	328						
329	330	331	332	334	347	349	351	352	353	354	356	357	358						
360	361	362	363	364	356	367	370	371	375	376	378	379	386						
387	390	393	395	396	397	398	400	405	407	408	409	410	411						
412	414	416	418	419	421	422	424	428	429	431	432	433	434						
436	437	438	439	442	444	448	449	450	451	452	454	459	460						
461	462	465	467	468	469	470	471	472	473	474	475	476	477						
478	481	482	483	484	485	486	487	488	489	490	492	493	494						
501	502	504	505	506	507	508	509	511	512	513	514	516	517						
520	521	522	523	524	525	526	531	533	535	537	538	539	541						
542	543	544	545	548	550	551	552	553	560	561	562	564	565						
566	570	571	572	573	574	575	581	583	584	585	586	587	588						
590	592	593	595	598	600	601	602	604	615	606	607	608	609						
610	614	619	620	622	625	630	634	636	637	638	640	641	648						
651	652	657	659	662	663	665	667	670	673	674	675	676	677						
681	683	686	687	688	689	690	692	698	699	701	702	705	706						
707	708	709	710	711	713	714	716	717	718	721	723	726	727						
728	729	730	735	736	738	739	740	741	742	752	753	754	755						
757	758	760	763	765	767	768	772	773	774	775	776	777	778						
779	781	788	789	790	792	797	798	799	802	803	804	805	806						
808	810	812	813	815	817	819	820	821	822	823	824	825	826						
829	830	831	832	834	838	841	842	843	844	845	846	848	849						
850	851	852	853	854	856	858	864	866	867	868	869	871	877						
879	880	881	882	883	887	888	896	902	903	906	907	909	910						
911	914	915	916	918	919	920	922	923	927	928	929	932	933						
934	935	937	938	939	940	941	942	943	944	945	946	948	950						
951	952	953	954	955	956	957	959	962	963	966	968	970	971						
973	974	975	976	977	979	980	982	984	985	986	987	988	989						
990	991	992	993	994	995	997	998	999	1000	1001	1002	1003							
1004	1005	1007	1008	1009	1010	1011	1012	1015	1016	1018									
1019	1020	1021	1022	1024	1025	1027	1028	1030	1031	1032									
1034	1035	1036	1038	1041	1042	1043	1045	1047	1056	1057									
1059	1060	1063	1064	1066	1068	1069	1073	1074	1075	1076									
1077	1078	1080	1085	1086	1087	1088	1089	1090	1092	1094									
1095	1096	1097	1098	1099	1100	1102	1105	1107	1108	1109									
1110	1112	1114	1117	1118	1119	1121	1122	1123	1124	1125									



## ACTIVATION ANALYSIS-TECHNIQUE USED

## REACTOR - THERMAL NEUTRON (N, Y) (CONTINUED)

1127	1129	1131	1132	1133	1134	1135	1137	1138	1139	1140
1141	1143	1145	1146	1147	1150	1153	1155	1156	1159	1162
1165	1166	1167	1169	1170	1171	1173	1174	1176	1177	1180
1181	1182	1183	1184	1185	1187	1188	1189	1190	1191	1192
1193	1195	1196	1197	1199	1200	1201	1203	1204	1205	1206
1207	1208	1209	1210	1211	1212	1214	1215	1216	1218	1220
1221	1222	1223	1224	1225	1226	1227	1228	1230	1231	1233
1234	1235	1236	1237	1239	1240	1241	1242	1243	1244	1245
1246	1247	1250	1251	1254	1257	1260	1261	1262	1263	1264
1265	1266	1269	1271	1272	1273	1274	1275	1277	1278	1279
1281	1283	1285	1286	1287	1288	1289	1290	1291	1292	1293
1299	1300	1302	1306	1307	1310	1311	1313	1314	1317	1319
1320	1323	1324	1325	1326	1331	1332	1333	1340	1342	1347
1349	1351	1353	1355	1357	1361	1373	1376	1378	1380	1381
1382	1383	1384	1385	1386	1389	1391	1392	1395	1396	1398
1400	1401	1402	1404	1406	1409	1410	1411	1412	1416	1419
1420	1421	1425	1426	1428	1429	1431	1432	1433	1434	1436
1438	1439	1441	1443	1446	1449	1452	1454	1455	1456	1457
1458	1460	1462	1463	1466	1468	1469	1470	1471	1472	1473
1474	1477	1478	1479	1480	1484	1487	1491	1492	1493	1494
1495	1496	1497	1500	1502	1504	1505	1510	1512	1515	1517
1518	1519	1520	1521	1525	1526	1527	1529	1531	1533	1534
1537	1538	1539	1540	1541	1542	1543	1548	1549	1550	1551
1552	1553	1554	1555	1556	1558	1563	1564	1565	1566	1568
1569	1570	1571	1572	1573	1574	1576	1577	1578	1581	1583
1584	1585	1587	1588	1592	1595	1596	1597	1601	1603	1606
1607	1610	1612	1613	1614	1615	1616	1617	1618	1621	1628
1631	1632	1633	1634	1635	1636	1641	1644	1645	1647	1648
1649	1652	1653	1654	1655	1658	1659	1660	1661	1664	1665
1671	1672	1673	1676	1677	1678	1679	1681	1682	1689	1692
1693	1694	1697	1699	1702	1703	1705	1706	1707	1708	1709
1710	1711	1712	1715	1717	1719	1722	1723	1725	1726	1727
1729	1731	1732	1734	1736	1737	1741	1743	1744	1745	1746
1747	1748	1749	1750	1751	1752	1755	1759	1760	1761	1762
1763	1766	1767	1769	1770	1774	1780	1781	1782	1783	1785
1786	1787	1788	1789	1790	1791	1792	1793	1794	1795	1797
1799	1800	1803	1805	1806	1812	1813	1817	1818	1819	1820
1821	1824	1825	1827	1828	1829	1830	1832	1833	1834	1835
1839	1840	1841	1842	1844	1845	1848	1855	1856	1857	1858
1862	1863	1870	1872	1874	1878	1881	1882	1886	1888	1890
1891	1892	1893	1894	1895	1897	1901	1902	1904	1906	1907
1909	1913	1914	1918	1920	1921	1924	1925	1926	1929	1930
1931	1936	1937	1938	1945	1948	1952	1953	1957	1958	1959
1960	1962	1964	1965	1966	1969	1970	1971	1973	1974	1975
1976	1977	1980	1982	1983	1984	1985	2052	2121	2122	2123
2141	2144	2145	2146	2154	2157	2251	2283	2294	2306	2308



## ACTIVATION ANALYSIS-TECHNIQUE USED

REACTOR - THERMAL NEUTRON (N, Y) (CONTINUED)

2327	2333	2337	2340	2347	2350	2358	2365	2369	2376	2386
2403	2422	2426	2430	2431	2437	2440	2441	2444	2445	2447
2455	2464	2473	2474	2480	2481	2493	2495	2496	2497	2499
2502	2503	2507	2508	2509	2511	2515	2517	2523	2525	2533
2534	2535	2537	2539	2540	2546	2548	2550	2551	2552	2553
2558	2559	2563	2565	2571	2573	2578	2579	2584	2590	2595
2597	2601	2605	2607	2610	2611	2612	2613	2614	2619	2621
2633	2636	2638	2639	2640	2641	2643	2644	2645	2651	2654
2657	2658	2659	2660	2663	2664	2665	2669	2671	2673	2680
2683	2685	2687	2688	2689	2690	2694	2695	2694	2699	2701
2707	2711	2713	2714	2715	2717	2718	2721	2722	2724	2725
2727	2728	2730	2731	2732	2733	2735	2737	2739	2740	2741
2744	2748	2750	2752	2753	2754	2756	2759	2762	2766	2769
2772	2773	2775	2776	2782	2786	2789	2790	2791	2792	2793
2794	2795	2797	2800	2801	2804	2805	2806	2819	2821	2836
2838	2839	2840	2844	2845	2846	2848	2849	2852	2853	2865
2870	2871	2873	2876	2878	2881	2882	2887	2888	2889	2892
2902	2904	2920	2921	2922	2923	2926	2927	2929	2930	2931
2932	2936	2938	2942	2943	2945	2950	2957	2958	2963	2964
2969	2970	2973	2976	2977	2978	2979	2981	2982	2984	2989
2991	2999	3005	3027	3059	3060	3061	3062	3065	3079	3081
3084	3091	3092	3093	3098	3105	3126	3328	3341	3342	3344
3345	3350	3352	3358	3360	3362	3363	3365	3366	3367	3368
3369	3370	3371	3372	3382	3383	3384	3396	3387	3388	3391
3394	3395	3396	3397	3411	3414	3418	3464	3466	3467	3469
3470	3473	3475	3476	3481	3482	3483	3495	3486	3488	3489
3494	3498	3504	3514	3530	3661	3669	3708	3709	3710	3713
3714	3716	3723	3724	3725	3726	3727	3730	3731	3732	3736
3738	3739	3740	3745	3755	3757	3759	3760	3766	3769	3770
3774	3775	3778	3780	3785	3788	3789	3791	3797	3804	3808
3810	3811	3841	3949	3954	3955	3956	3957	3958	3959	3960
3961	3964	3979	3982	3988	3989	3990	3991	3993	3994	3998
4153	4190	4191	4192	4194	4195	4196	4201	4202	4203	4207
4208	4216	4219	4224	4230	4231	4232	4240	4242	4244	4249
4250	4253	4254	4255	4258	4262	4263	4267	4268	4269	4270
4272	4274	4278	4281	4283	4284	4285	4286	4290	4291	4293
4296	4298	4299	4301	4302	4303	4305	4306	4307	4308	4309
4310	4311	4314	4315	4319	4321	4322	4325	4328	4329	4347
4374	4381	4388	4406	5262	5295	5307	5320	5323	5326	5327
5328	5335	5336	5338	5341	5343	5344	5345	5347	5349	5350
5357	5358	5359	5363	5364	5365	5366	5368	5369	5370	5378
5381	5382	5385	5386	5390	5393	5394	5395	5397	5398	5399
5401	5402	5405	5406	5407	5408	5410	5415	5422	5428	5436
5438	5439	5444	5441	5448	5449	5472	5409	5500	5502	5510
5515	5517	5547	5551	5571	5577	5579	5501	5592	5619	5697
5699	5701	5703	5704	5705	5706	5707	5712	5713	5716	5717



## ACTIVATION ANALYSIS-TECHNIQUE USED

REACTOR - THERMAL NEUTRON (N, Y) (CONTINUED)

5718	5719	5721	5725	5726	5727	5728	5729	5730	5731	5732
5735	5742	5743	5746	5747	5749	5750	5751	5753	5755	5756
5759	5760	5761	5765	5766	5770	5771	5775	5777	5779	5784
5785	5786	5787	5788	5790	5792	5793	5808	5851	5858	5860
5862	5864	5868	5872	5873	5874	5919	5922	5924	5925	5926
5927	5928	5929	5931	5932	5933	5934	5935	5936	5939	5940
5941	5942	5944	5948	5949	5951	5953	5955	5958	5959	5960
5961	5962	5963	5964	5965	5967	5969	5970	5972	5975	5976
5977	5981	5983	5984	5991	5992	5994	5995	5996	5999	6000
6001	6002	6003	6005	6006	6007	6008	6010	6011	6012	6013
6015	6016	6017	6023	6024	6031	6039	6040	6043	6044	6047
6048	6050	6052	6054	6055	6058	6061	6062	6063	6064	6067
6068	6069	6071	6073	6074	6077	6079	6080	6081	6085	6086

REACTOR - FAST (N,P) (N,A) (N,N1) (N,2N)

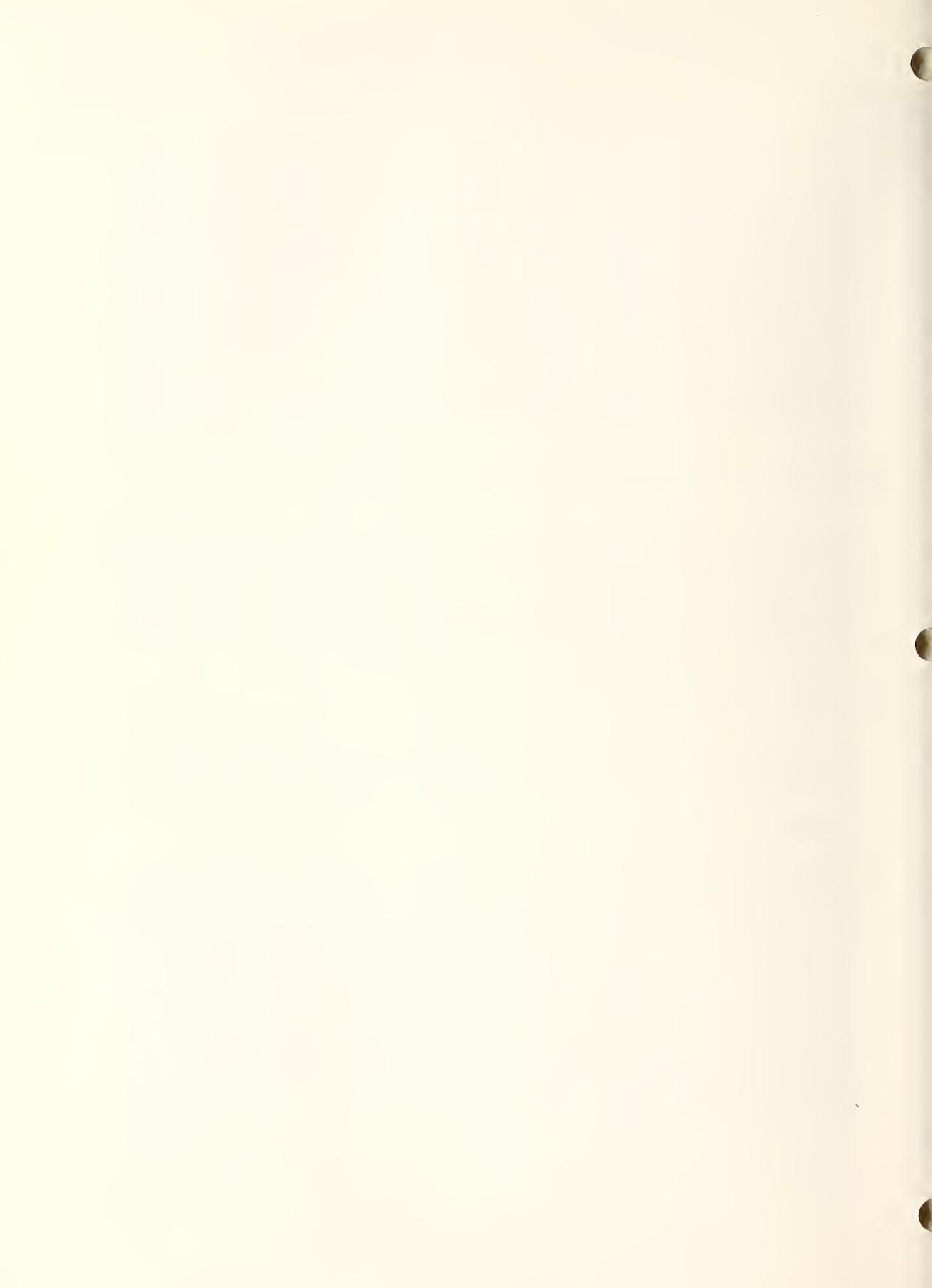
140	157	314	341	491	520	530	681	703	707	711	716	807	808
810	811	818	828	843	854	877	897	951	1157	1161	1167	1198	
1327	1334	1340	1351	1374	1378	1403	1413	1415	1424	1427			
1439	1455	1479	1546	1547	1620	1639	1659	1717	1731	1814			
1902	1907	1911	1965	2595	2623	2676	3059	3064	3361	3489			
3494	3560	3965	3986	3997	4221	4227	5698	5759					

REACTOR - EPITHERMAL

140	520	807	818	828	862	1186	1439	1506	1659	1731	1910
2625	3385	3494	3975	3987	3998	4300	5848				

ISOTOPE SOURCE - NEUTRONS

1	20	37	52	53	82	130	135	147	188	203	213	219	227	228
229	230	233	234	258	259	272	301	321	327	333	335	343	344	
377	402	445	555	589	612	665	717	783	791	810	827	837	841	
904	905	924	949	958	1055	1056	1061	1093	1111	1202	1259			
1267	1295	1298	1315	1329	1336	1337	1357	1393	1423	1430				
1440	1513	1544	1558	1559	1586	1591	1630	1637	1642	1651				
1698	1740	1754	1758	1772	1822	1843	1857	1865	1873	1879				
1880	1941	1961	2364	2698	2940	2956	2966	2987	3033	3078				
3366	3373	3374	3375	3376	3399	3411	3465	3489	3758	3948				
3962	3996	4198	4215	4276	4289	4294	5325	5356	5501	5566				
5581	5716	5772	5854	5857										



# ACTIVATION ANALYSIS-TECHNIQUE USED

## GENERATOR = OR SEAL ED TUBE

74	77	131	155	199	204	253	271	285	316	324	376	426	500
518	519	546	567	591	611	618	621	628	629	637	638	658	678
679	680	695	696	712	716	762	810	841	898	917	921	936	960
961	972	977	996	1017	1033	1046	1052	1054	1056	1067	1075		
1084	1103	1104	1115	1116	1152	1172	1217	1229	1248	1258			
1284	1294	1297	1304	1309	1353	1394	1397	1399	1407	1414			
1437	1439	1444	1450	1453	1489	1508	1514	1522	1530	1535			
1589	1593	1602	1619	1626	1640	1656	1666	1667	1670	1685			
1698	1701	1721	1738	1739	1753	1773	1798	1802	1804	1813			
1815	1859	1864	1875	1887	1889	1896	1899	1900	1905	1912			
1922	1939	1940	1950	1954	1955	1956	1957	1968	1978	1981			
2129	2297	2354	2384	2410	2418	2433	2434	2453	2498	2504			
2505	2506	2512	2518	2519	2524	2526	2527	2542	2549	2561			
2567	2568	2569	2580	2586	2591	2596	2598	2608	2615	2617			
2620	2622	2649	2666	2667	2674	2678	2705	2707	2720	2734			
2749	2761	2764	2778	2796	2798	2802	2806	2849	2933	2975			
2983	2987	3058	3059	3063	3073	3074	3075	3076	3085	3087			
3088	3090	3335	3355	3357	3364	3366	3411	3460	3487	3495			
3496	3497	3502	3553	3717	3718	3746	3751	3753	3781	3790			
3794	3796	3810	3973	3976	3980	3981	4005	4205	4214	4228			
4252	4260	4261	4273	4282	4392	5261	5321	5322	5332	5339			
5353	5380	5383	5384	5389	5403	5409	5416	5420	5431	5432			
5443	5445	5450	5451	5452	5708	5711	5714	5720	5739	5757			
5764	5772	5776	5778	5780	5781	5782	5784	5884	5920	5923			
5978	6014	6022	6059	6065	6075								

## ACCELERATOR = NEUTRONS

16	17	23	91	92	98	108	109	111	113	125	175	189	205	274
275	304	316	376	403	413	520	549	574	580	596	635	639	647	
660	732	733	780	841	863	872	875	876	934	965	967	1014		
1026	1072	1075	1213	1319	1355	1407	1442	1444	1489	1509				
1598	1623	1691	1808	1836	1838	1854	1917	1940	1963	2323				
2510	2661	2668	2684	2686	2697	2774	2947	3461	3495	3496				
3497	3752	3768	3791	3979	4198	4202								

## PHOTON ACTIVATION (INCLUDES ISOTOPE SOURCE)

38	45	46	49	58	74	75	169	170	206	207	339	351	380	554
631	637	669	703	814	855	861	978	983	1006	1014	1043	1062		
1075	1081	1083	1106	1136	1160	1163	1175	1178	1238	1263				
1270	1334	1340	1375	1435	1444	1475	1481	1501	1560	1597				
1609	1646	1764	1765	1778	1816	1849	1857	1861	1871	1926				
1935	2126	2272	2298	2303	2318	2348	2495	2554	2555	2697				
2758	2777	2965	2972	3072	3077	3346	3379	3474	3486	3495				



## ACTIVATION ANALYSIS-TECHNIQUE USED

## PHOTON ACTIVATION (INCLUDES ISOTOPE SOURCE) (CONTINUED)

3727 3729 3771 3775 3799 3803 3810 3970 3979 4189 4211  
 4277 4386 5308 5311 5319 5379 5430 5442 5520 5621 5740  
 5784 5870 5950 5954 5977 5979 6070

## CHARGE PARTICLE (INCLUDES ISOTOPE SOURCE)

4 8 29 87 105 118 119 153 160 181 184 185 201 274 275  
 314 346 381 382 383 384 385 401 417 423 443 455 479 495  
 497 498 499 520 578 623 637 638 703 734 744 771 839 855  
 912 913 1013 1023 1065 1075 1091 1101 1148 1151 1194  
 1219 1232 1256 1280 1312 1318 1377 1408 1444 1450 1483  
 1486 1490 1561 1599 1604 1668 1704 1720 1742 1778 1811  
 1823 1831 1836 1837 1915 1935 1951 2254 2259 2298 2381  
 2429 2505 2531 2555 2618 2628 2629 2632 2634 2652 2673  
 2697 2712 2948 2949 3070 3071 3089 3351 3403 3411 3495  
 3711 3721 3722 3767 3777 3783 3791 3976 3977 3979 3995  
 4000 4193 4197 4198 4209 4211 4226 5177 5238 5330 5372  
 5429 5435 5442 5543 5580 5752 5768 5769 5773 5921 5938  
 5957 6004 6053 6056 6066 6072

## SECONDARY PARTICLE

110 196 256 391 654 655 756 770 782 784 867 868 981  
 1070 1071 1075 1082 1158 1252 1330 1450 152<sup>R</sup> 1532 1609  
 1675 1713 1730 1801 1979 2385 2543 2562 2661 2726 3965  
 3985 3992

## NON-DESTRUCTIVE

2 13 17 21 23 24 29 35 37 38 43 45 46 48 49 51 52 53 54  
 58 59 73 75 81 82 88 90 97 98 100 102 104 105 107 108  
 109 110 113 114 118 119 120 125 130 131 135 136 140 144  
 147 148 151 153 155 163 169 170 171 175 179 184 185 188  
 189 198 199 204 205 206 207 213 215 216 219 227 228 229  
 232 233 237 238 239 240 246 252 253 259 266 267 268 271  
 272 274 275 291 300 301 304 305 319 323 325 330 331 333  
 339 343 344 346 349 351 357 358 371 375 380 381 382 386  
 387 393 396 397 402 403 405 407 408 413 414 417 423 426  
 428 433 444 445 454 455 460 461 462 468 472 476 479 486  
 487 488 489 491 494 499 500 512 514 516 518 519 520 521  
 523 524 530 533 538 546 549 552 554 555 561 562 566 567  
 573 574 578 580 581 584 589 590 591 592 594 596 598 604  
 605 606 607 608 612 618 619 620 621 623 625 628 629 630  
 631 632 635 640 641 654 657 658 659 662 665 667 669 670  
 686 687 690 695 696 702 703 707 709 711 712 713 716 717



## ACTIVATION ANALYSIS-TECHNIQUE USED

## NON-DESTRUCTIVE (CONTINUED)

725	726	732	733	738	739	744	752	753	754	755	756	758	762
763	770	771	774	775	782	783	784	791	797	798	803	806	807
808	810	811	814	818	819	822	823	831	839	842	843	844	845
850	851	852	853	854	855	861	862	863	868	882	887	888	902
904	905	908	912	913	914	915	916	921	924	927	932	933	934
936	938	939	940	943	946	948	949	950	951	954	955	956	957
958	959	960	961	966	972	974	975	977	978	981	982	983	986
987	989	990	991	992	993	994	996	1003	1004	1005	1006		
1007	1008	1009	1011	1013	1014	1017	1019	1021	1023	1024			
1025	1026	1029	1030	1031	1032	1033	1035	1036	1052	1054			
1055	1056	1059	1060	1061	1062	1063	1064	1065	1066	1067			
1068	1070	1071	1072	1073	1074	1075	1077	1078	1079	1081			
1082	1083	1084	1088	1090	1092	1093	1095	1097	1098	1099			
1103	1104	1106	1110	1111	1112	1114	1115	1116	1131	1132			
1136	1140	1141	1143	1152	1153	1158	1160	1161	1162	1172			
1175	1178	1195	1196	1197	1199	1200	1202	1203	1204	1213			
1216	1217	1218	1219	1220	1225	1227	1228	1229	1233	1238			
1239	1245	1248	1251	1252	1254	1256	1258	1259	1260	1263			
1267	1269	1270	1279	1280	1283	1284	1289	1290	1294	1295			
1297	1298	1302	1304	1306	1309	1311	1314	1315	1318	1336			
1337	1351	1355	1357	1361	1374	1375	1376	1377	1380	1386			
1389	1392	1393	1394	1395	1396	1397	1398	1399	1402	1403			
1407	1413	1414	1415	1419	1420	1424	1427	1429	1435	1452			
1453	1455	1456	1460	1466	1468	1472	1473	1477	1481	1483			
1487	1491	1492	1495	1496	1500	1501	1504	1505	1506	1509			
1510	1513	1514	1517	1519	1521	1522	1527	1530	1531	1532			
1535	1541	1546	1547	1549	1550	1551	1552	1553	1555	1556			
1558	1559	1565	1567	1572	1573	1574	1576	1578	1583	1585			
1586	1589	1590	1591	1595	1597	1598	1599	1601	1604	1606			
1611	1617	1618	1620	1623	1635	1637	1639	1642	1646	1649			
1651	1654	1656	1664	1665	1666	1667	1670	1674	1677	1680			
1683	1685	1686	1689	1691	1702	1706	1707	1709	1710	1712			
1715	1717	1719	1721	1725	1726	1736	1737	1738	1739	1740			
1746	1751	1752	1754	1758	1759	1760	1761	1764	1765	1772			
1773	1778	1782	1783	1785	1787	1789	1790	1793	1794	1795			
1798	1799	1802	1803	1804	1806	1809	1813	1814	1815	1816			
1819	1821	1822	1823	1827	1829	1830	1831	1834	1837	1840			
1843	1854	1855	1857	1859	1861	1865	1871	1873	1875	1878			
1879	1881	1882	1886	1887	1888	1889	1896	1897	1898	1899			
1900	1905	1906	1910	1912	1917	1921	1922	1924	1926	1929			
1938	1939	1940	1941	1948	1950	1951	1953	1954	1955	1956			
1957	1958	1961	1962	1965	1966	1968	1971	1973	1981	1983			
1984	1985	2121	2123	2126	2129	2141	2144	2145	2146	2251			
2254	2272	2297	2303	2318	2323	2337	2350	2354	2364	2376			
2381	2384	2418	2422	2426	2429	2430	2433	2441	2453	2480			
2481	2493	2495	2496	2497	2498	2502	2503	2504	2505	2506			
2507	2508	2517	2518	2519	2524	2525	2526	2542	2548	2549			



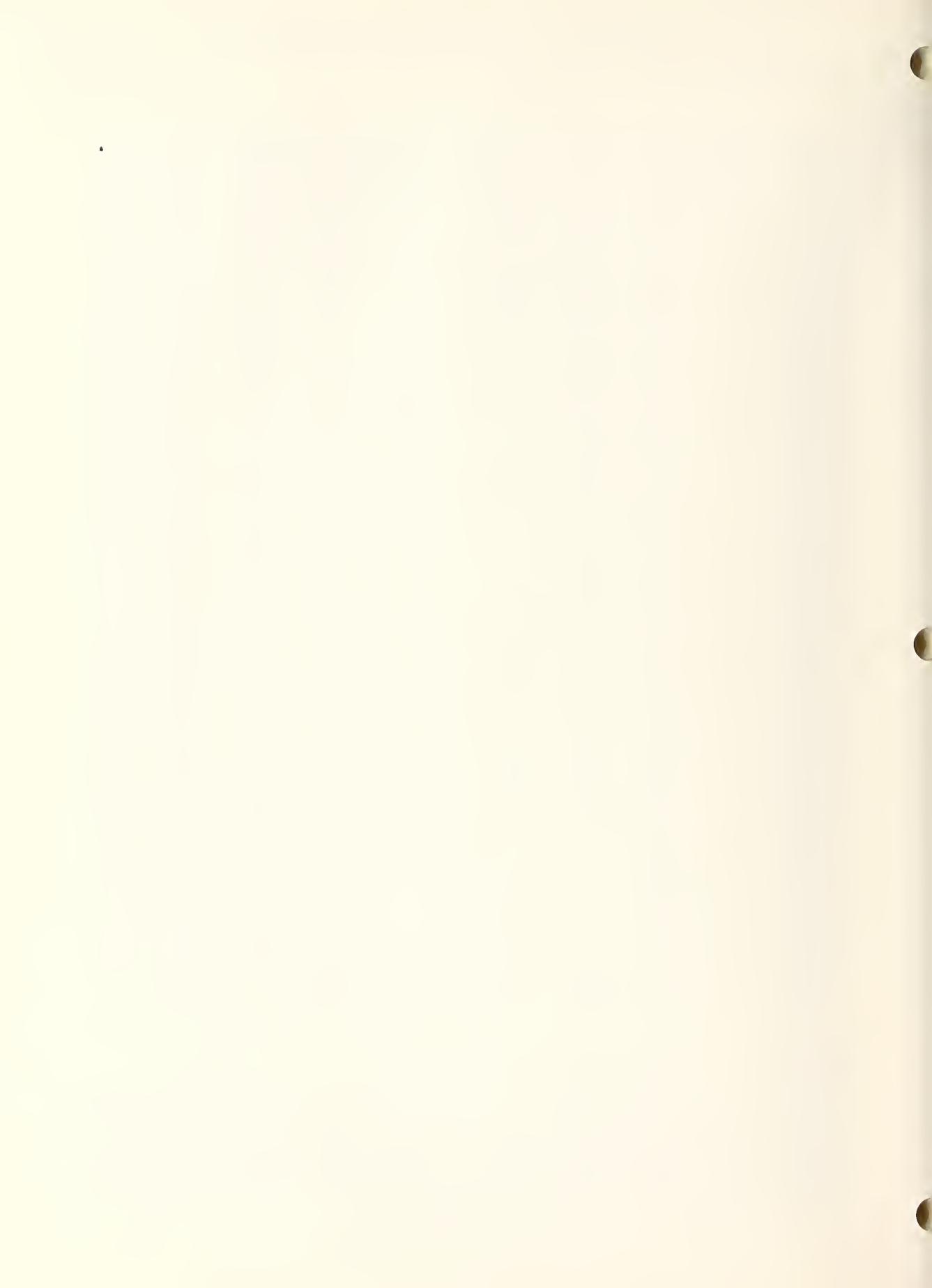
## ACTIVATION ANALYSIS-TECHNIQUE USED

## NON-DESTRUCTIVE (CONTINUED)

2553	2554	2559	2569	2571	2579	2580	2584	2586	2591	2596
2597	2598	2605	2607	2608	2610	2612	2614	2615	2618	2619
2621	2622	2623	2633	2634	2644	2645	2649	2651	2652	2660
2661	2663	2664	2666	2668	2671	2676	2678	2680	2684	2686
2688	2689	2694	2699	2705	2707	2711	2727	2730	2732	2734
2737	2739	2740	2744	2748	2749	2750	2751	2756	2758	2759
2762	2764	2766	2774	2775	2777	2782	2789	2790	2796	2797
2798	2801	2802	2804	2805	2844	2892	2920	2921	2922	2927
2931	2933	2940	2942	2943	2945	2948	2949	2956	2957	2963
2964	2965	2966	2972	2976	2979	2981	2983	2987	3027	3033
3060	3062	3063	3078	3085	3087	3088	3089	3090	3126	3344
3346	3350	3355	3357	3358	3361	3362	3363	3364	3365	3366
3367	3368	3369	3370	3371	3372	3373	3374	3375	3376	3379
3384	3385	3386	3394	3399	3411	3418	3460	3461	3464	3466
3470	3473	3474	3486	3502	3514	3530	3553	3661	3708	3709
3710	3711	3717	3718	3721	3722	3727	3729	3730	3736	3738
3739	3740	3745	3746	3752	3753	3760	3766	3767	3768	3770
3771	3775	3778	3780	3781	3783	3788	3790	3791	3794	3797
3799	3803	3809	3810	3811	3841	3948	3954	3956	3965	3970
3973	3975	3976	3977	3980	3981	3986	3991	3992	3994	3996
3997	3998	4000	4005	4189	4191	4193	4194	4196	4197	4205
4207	4208	4209	4211	4214	4215	4216	4224	4226	4230	4231
4232	4240	4250	4252	4258	4260	4261	4262	4263	4270	4276
4277	4281	4282	4283	4284	4285	4286	4289	4293	4294	4308
4322	4328	4329	4347	4381	4386	4392	4406	5177	5238	5261
5262	5308	5311	5319	5320	5321	5322	5323	5325	5326	5330
5332	5343	5350	5353	5356	5357	5358	5363	5370	5372	5380
5383	5384	5385	5386	5389	5390	5393	5394	5399	5401	5402
5403	5407	5408	5409	5420	5428	5429	5430	5431	5432	5435
5438	5445	5450	5451	5452	5501	5510	5515	5517	5543	5547
5551	5566	5571	5577	5579	5581	5591	5621	5698	5704	5706
5707	5708	5713	5714	5720	5726	5727	5732	5735	5739	5740
5742	5746	5749	5752	5756	5759	5761	5764	5765	5766	5768
5769	5772	5773	5776	5778	5779	5781	5782	5784	5788	5848
5858	5870	5872	5874	5884	5919	5920	5923	5925	5927	5931
5932	5933	5934	5936	5939	5950	5953	5958	5959	5965	5967
5969	5970	5975	5977	5978	5979	5992	5994	6000	6004	6005
6011	6012	6014	6015	6031	6047	6048	6050	6052	6056	6058
6062	6063	6065	6068	6069	6072	6073	6074			

## CHEMISTRY • DISSOLUTION TECHNIQUE

103	192	212	239	254	255	270	322	436	442	465	469	470	473
482	512	522	550	610	651	677	698	706	718	815	821	881	909
910	1001	1155	1166	1167	1169	1171	1173	1174	1176	1192			
1206	1207	1214	1436	1788	1842	1930	2154	2296	2365	2657			
2836	2991	3334	5399	5444									



# ACTIVATION ANALYSIS-TECHNIQUE USED

## CHEMISTRY - GROUP SEPARATIONS

103	166	167	252	255	424	462	508	509	614	674	704	708	714
726	741	805	820	821	829	830	834	848	850	878	968	985	
1045	1047	1069	1089	1118	1123	1134	1138	1254	1323	1425			
1434	1443	1699	1710	1797	1800	1832	1894	1945	1965	1975			
2403	2523	2715	2718	2729	2840	2852	2922	2936	2950	3382			
4004	5344	5345	5347	5619	5760	5771	5785	5981	6071				

## CHEMISTRY - GENERAL

4	5	9	22	28	65	68	69	78	80	81	83	84	85	89	123	141	154
158	174	176	187	192	193	194	200	215	239	240	282	284	287				
288	289	290	291	300	310	317	374	477	493	502	564	588	614				
638	640	641	651	652	662	674	676	683	686	688	692	698	699				
702	703	704	705	706	710	735	742	760	767	773	779	789	790				
807	815	818	825	827	838	844	851	852	856	879	882	895	896				
920	942	944	962	963	964	965	967	970	971	976	979	980	984				
995	997	998	1000	1002	1004	1020	1022	1027	1034	1041							
1057	1060	1075	1076	1085	1086	1087	1088	1094	1097	1102							
1105	1107	1122	1145	1156	1165	1169	1170	1180	1183	1184							
1187	1189	1190	1193	1194	1275	1283	1286	1312	1351	1354							
1356	1357	1361	1371	1373	1382	1383	1384	1385	1396	1397							
1400	1406	1408	1411	1421	1442	1457	1494	1652	1665	1675							
1693	1694	1707	1709	1711	1713	1717	1723	1725	1760	1769							
1786	1791	1803	1818	1828	1832	1848	1856	1858	1863	1890							
1902	1907	1911	1914	1920	1933	1976	2296	2333	2447	2464							
2473	2474	2495	2509	2522	2534	2535	2543	2546	2550	2578							
2590	2601	2685	2687	2717	2721	2735	2802	2819	2848	2876							
2892	2921	2922	2923	3079	3091	3382	3481	3483	3486	3504							
3508	3514	3560	3708	3755	3962	3987	3988	3995	4153	4216							
4219	4300	4315	4317	4319	5307	5327	5416	5436	5444	5499							
5502	5716	5717	5718	5861	5864	5924	5940	5942	5976	5980							
5982	5991	6008	6016	6044	6055												

## CHEMISTRY - PRECIPITATION

6	7	10	11	12	30	31	32	39	44	54	55	56	63	64	66	67	96	103
115	116	124	130	133	137	138	139	145	146	148	161	165	172					
178	180	183	209	214	217	221	223	225	227	230	231	232	234					
236	243	244	246	249	250	252	254	255	262	263	270	279	300					
302	304	326	329	349	351	353	360	361	362	363	364	366	367					
391	398	400	411	416	422	429	431	432	434	436	448	449	452					
459	461	465	467	478	482	483	501	512	517	522	525	531	535					
537	541	544	545	553	560	562	571	575	585	586	587	620	622					
655	673	675	677	687	689	727	757	776	777	778	788	792	802					
805	815	821	858	861	869	871	878	892	907	922	928	929	937					
945	1060	1108	1117	1118	1124	1125	1127	1135	1137	1151								



# ACTIVATION ANALYSIS-TECHNIQUE USED

## CHEMISTRY - PRECIPITATION (CONTINUED)

1155	1159	1166	1169	1170	1171	1173	1174	1176	1177	1181
1182	1188	1205	1206	1207	1208	1212	1214	1215	1222	1223
1224	1226	1230	1231	1232	1235	1237	1240	1241	1243	1244
1246	1247	1257	1266	1271	1278	1292	1293	1299	1300	1307
1310	1319	1320	1323	1324	1326	1334	1340	1347	1351	1428
1433	1449	1456	1458	1469	1471	1473	1477	1478	1480	1484
1515	1520	1525	1533	1542	1548	1563	1564	1568	1569	1571
1577	1581	1584	1592	1613	1614	1615	1621	1631	1632	1634
1636	1648	1655	1660	1671	1672	1677	1682	1697	1705	1720
1734	1743	1745	1749	1750	1770	1781	1801	1812	1825	1833
1839	1844	1893	1936	1937	1970	1977	1979	1982	2122	2365
2385	2496	2497	2552	2573	2643	2654	2658	2669	2690	2751
2769	2772	2773	2786	2791	2792	2793	2821	2830	2839	2849
2852	2865	2878	2926	2930	2938	2954	2977	2982	2984	3061
3098	3105	3328	3352	3387	3391	3393	3395	3467	3485	3488
3713	3723	3724	3725	3726	3732	3785	3949	3957	3960	3985
3993	3994	4195	4219	4221	4227	4244	4249	4252	4255	4267
4268	4272	4290	4299	4307	5349	5359	5369	5406	5472	5522
5721	5731	5755	5777	5972	5983	6002	6010	6053	6064	6086

## CHEMISTRY - DISTILLATION

8	10	11	62	103	117	121	122	124	134	142	143	172	181	186
196	197	221	222	226	231	242	245	248	256	279	284	322	370	
378	451	465	474	475	481	493	498	562	570	602	636	709	804	
812	851	864	871	911	1010	1012	1100	1119	1124	1135	1151			
1157	1205	1221	1226	1230	1231	1235	1246	1250	1278	1288				
1326	1340	1412	1416	1425	1446	1470	1528	1542	1548	1560				
1564	1648	1679	1730	1742	1744	1749	1862	1891	1904	1964				
1969	2157	2403	2515	2537	2540	2562	2563	2661	2701	2712				
2731	2795	2813	2853	2954	3360	3713	3725	3726	3732	3789				
3808	3965	4217	4254	4255	4268	4269	4274	4278	4305	4321				
5295	5358	5364	5366	5449	5851	5926	5938	5954	6025	6039				

## CHEMISTRY - SOLVENT EXTRACTION

12	26	33	34	40	41	42	50	62	66	116	117	124	133	137	138
140	145	146	165	178	183	186	210	212	221	229	234	235	239		
243	249	252	254	255	262	269	328	361	362	367	379	409	410		
412	422	424	443	482	485	490	492	507	563	565	575	586	591		
601	634	772	781	804	810	813	815	858	864	866	867	878	880		
883	906	928	952	1015	1028	1096	1109	1121	1125	1127	1133				
1135	1139	1143	1145	1146	1147	1150	1153	1156	1159	1166					
1167	1168	1173	1184	1191	1201	1211	1212	1215	1231	1234					
1235	1243	1244	1250	1262	1264	1266	1273	1274	1278	1292					
1307	1313	1317	1323	1324	1325	1326	1340	1391	1401	1426					
1431	1433	1442	1456	1458	1470	1477	1480	1497	1518	1526					



# ACTIVATION ANALYSIS-TECHNIQUE USED

## CHEMISTRY - SOLVENT EXTRACTION (CONTINUED)

1537	1538	1548	1564	1566	1569	1581	1592	1603	1610	1614
1615	1621	1632	1648	1653	1671	1692	1703	1728	1741	1743
1748	1749	1763	1767	1788	1820	1825	1833	1841	1874	1895
1901	1913	1930	1931	1960	1980	2036	2154	2340	2347	2369
2386	2431	2434	2444	2445	2455	2499	2502	2525	2539	2611
2613	2641	2665	2685	2690	2696	2722	2752	2753	2754	2769
2791	2792	2793	2795	2811	2873	2881	2888	2889	2951	2991
3005	3084	3342	3345	3391	3395	3476	3482	3713	3714	3804
3957	3982	4190	4203	4253	4255	4269	4302	4311	4314	5335
5349	5365	5369	5397	5415	5500	5699	5703	5710	5728	5729
5730	5743	5747	5770	5775	5787	5793	5848	5928	5935	5949
5955	5960	5995	5996	5999	6013	6017	6054	6061		

## CHEMISTRY - CHROMATOGRAPHY OR ION EXCHANGE

14	47	50	54	61	79	87	93	96	115	138	140	145	146	160	212
225	252	258	263	267	325	331	356	390	416	418	421	422	434		
439	442	450	504	520	542	548	550	595	606	689	717	723	726		
728	730	799	870	871	874	878	892	899	900	909	919	923	988		
999	1015	1016	1038	1047	1063	1101	1107	1168	1169	1176					
1205	1209	1210	1214	1221	1222	1236	1242	1243	1265	1272					
1277	1281	1285	1287	1292	1307	1323	1324	1332	1333	1342					
1381	1404	1410	1421	1428	1431	1432	1434	1441	1441	1449	1454				
1462	1463	1469	1470	1471	1474	1477	1478	1479	1486	1512					
1529	1564	1566	1584	1592	1596	1603	1607	1613	1616	1632					
1633	1634	1644	1645	1668	1677	1678	1679	1681	1682	1704					
1708	1722	1732	1741	1747	1759	1762	1766	1780	1797	1800					
1805	1811	1817	1824	1835	1839	1844	1870	1872	1892	1894					
1925	1945	1952	1957	1959	1973	1983	2052	2148	2149	2283					
2308	2327	2386	2480	2496	2513	2523	2557	2638	2639	2640					
2654	2669	2687	2690	2695	2713	2714	2725	2741	2754	2776					
2794	2800	2812	2846	2849	2852	2870	2882	2888	2901	2902					
2904	2932	2969	2973	2989	2999	3005	3045	3093	3341	3383					
3397	3414	3469	3475	3661	3714	3716	3731	3757	3759	3774					
3789	3808	3810	3955	3957	3958	3959	3961	3964	3990	4004					
4192	4219	4267	4268	4291	4296	4301	4388	4391	4410	4411					
5336	5338	5341	5359	5368	5378	5382	5405	5410	5422	5439					
5447	5448	5697	5750	5751	5790	5792	5808	5862	5873	5941					
5951	5955	5961	5962	5963	5964	5981	6001	6007	6040	6043					
6067	6077	6078	6079	6084	6085										

## CHEMISTRY - ELECTRODEPOSITION

138	211	261	340	395	579	832	1113	1129	1192	1221	1313
1391	1471	1525	2511	2728	2929	3991	4201	4303	5395	5398	
6076											



# ACTIVATION ANALYSIS-TECHNIQUE USED

CHEMISTRY = ISOTOPE EXCHANGE

126 436 539 540 636 1525 2277 2551 5701 5712 5860 6080

CHEMISTRY = AMALGAM EXCHANGE

740 815 1411 2006 2978 3989 4309 5942

CHEMISTRY = SCLARD=CHALMERS

153 328 1333 2473 2871

CHEMISTRY = SUBSTOICHIOMETRIC

425 768 1121 1159 1291 1346 1493 1575 1579 1587 1588  
1974 2154 2358 2560 2845 3396 3804 4306 4310 5922 5956  
5984 6024

CHEMISTRY = AUTOMATED

285 708 1042 2403 2556 2558 2901 5760

CHEMISTRY = ABSORPTION OR ABSORPTION

192 1539 1543

RAPID RADIOCHEMICAL SEPARATION

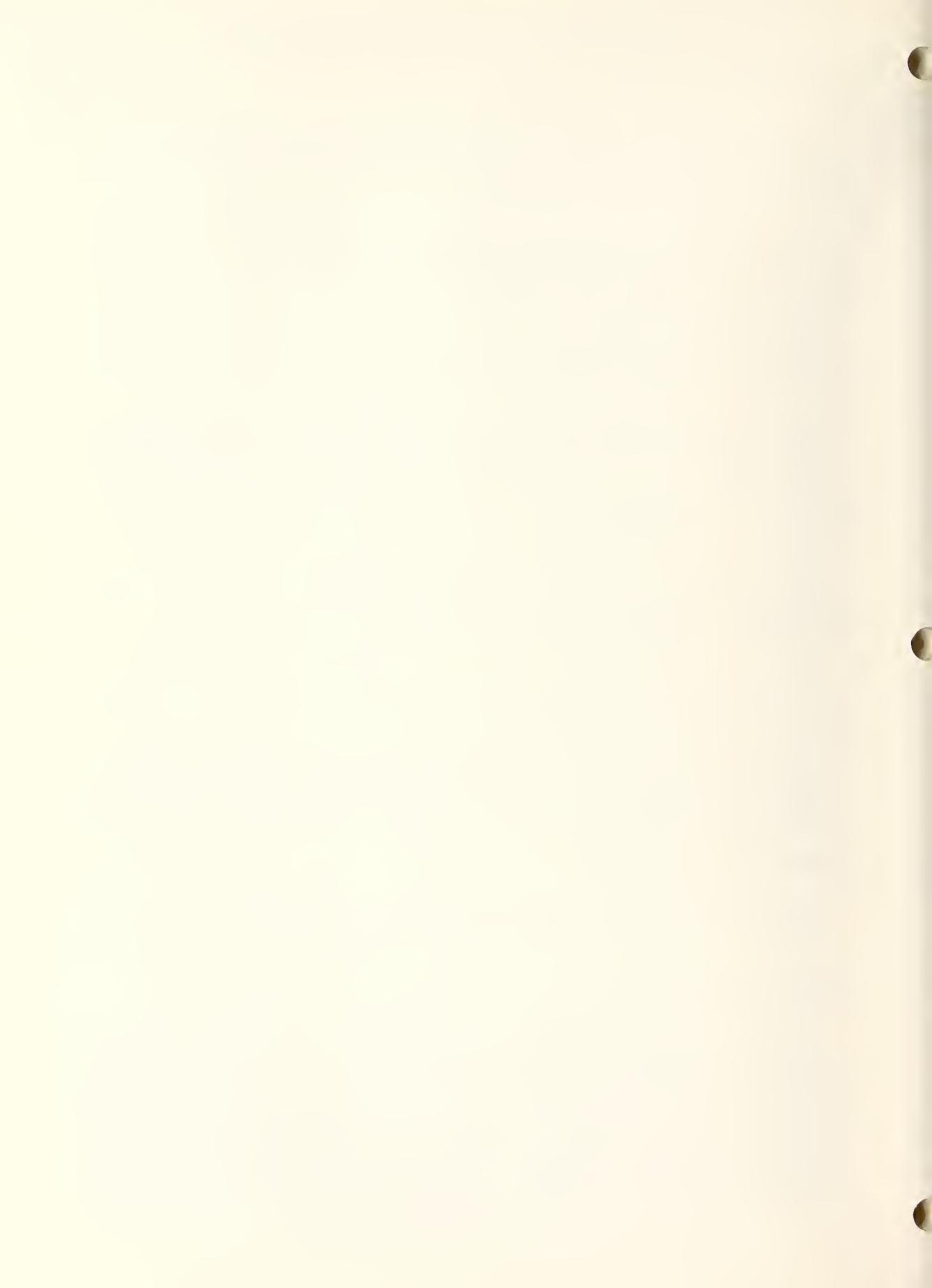
254 442 583 686 697 811 821 829 830 834 953 982 1172  
1409 1412 1425 1434 1446 1692 2157 2499 2611 2636 2954  
3388 3487 3669 3989 5336

ISOTOPE DILUTION

172 195 1018 1750 2887 3084 3093 4298 5753

GAMMA SPECTROMETRY

2 4 5 9 12 13 14 15 17 21 26 28 29 33 34 35 39 40 41 42  
43 44 48 50 54 55 56 58 59 61 64 78 79 80 81 89 90 103  
104 107 113 116 117 130 131 136 137 140 145 146 148 153  
160 165 167 172 173 175 178 179 183 184 185 193 197 199  
205 212 215 221 237 238 239 252 253 254 255 258 259 267  
268 272 279 284 285 288 289 290 291 301 302 304 305 310  
312 314 317 318 319 321 323 325 326 328 329 330 331 339  
343 344 349 351 352 353 356 357 364 370 371 374 375 377



## ACTIVATION ANALYSIS-TECHNIQUE USED

## GAMMA SPECTROMETRY (CONTINUED)

386	387	390	391	395	398	403	405	407	409	410	412	414	416
418	422	423	425	426	430	433	434	439	442	444	445	448	450
454	455	459	460	461	472	473	476	482	486	487	488	489	493
494	500	504	507	508	509	516	518	519	521	531	533	535	542
546	548	552	555	560	561	562	564	566	567	570	573	574	581
583	584	585	586	587	588	590	592	596	601	604	605	606	607
608	614	619	620	622	623	625	628	630	634	635	636	637	638
640	641	649	652	653	655	657	658	659	662	665	667	676	686
687	688	689	690	693	695	696	698	701	702	703	705	706	707
708	709	710	711	712	713	714	716	718	726	727	732	733	735
738	740	741	752	753	754	756	758	760	762	763	767	768	771
772	773	777	781	784	788	789	790	791	792	796	797	798	802
803	804	805	806	810	811	812	813	814	818	820	821	822	823
824	825	827	829	830	831	833	834	844	845	848	849	850	851
852	855	856	861	863	866	867	871	879	880	881	882	883	884
886	887	888	892	899	902	903	906	907	912	913	915	919	920
923	924	927	930	931	932	933	934	935	936	938	940	942	943
944	945	946	948	950	951	953	955	956	957	959	960	961	962
964	966	968	971	972	974	977	980	982	984	986	987	988	989
990	992	994	995	996	997	998	999	1001	1002	1003	1004		
1005	1006	1007	1008	1009	1010	1011	1012	1014	1017	1019			
1020	1021	1022	1024	1027	1029	1031	1032	1033	1034	1035			
1036	1038	1041	1042	1043	1047	1052	1055	1056	1060	1063			
1064	1065	1066	1068	1072	1073	1074	1075	1076	1077	1084			
1086	1087	1089	1090	1092	1094	1095	1097	1098	1099	1100			
1101	1102	1103	1105	1106	1107	1108	1109	1110	1112	1114			
1116	1117	1118	1119	1124	1129	1132	1134	1137	1138	1139			
1140	1141	1143	1150	1151	1152	1153	1157	1158	1159	1161			
1162	1166	1167	1168	1169	1170	1171	1172	1173	1174	1176			
1182	1183	1184	1185	1187	1189	1190	1191	1192	1194	1195			
1196	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208			
1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1220			
1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231			
1232	1233	1234	1235	1236	1238	1239	1240	1241	1243	1244			
1245	1246	1247	1248	1250	1251	1254	1256	1257	1258	1263			
1264	1265	1269	1272	1273	1275	1277	1279	1281	1283	1284			
1286	1288	1289	1290	1291	1293	1294	1295	1297	1299	1300			
1304	1306	1309	1310	1311	1312	1313	1314	1317	1318	1319			
1320	1323	1325	1327	1332	1333	1334	1340	1347	1355	1356			
1358	1359	1361	1369	1374	1375	1376	1381	1382	1383	1384			
1386	1391	1395	1396	1397	1398	1400	1402	1403	1404	1406			
1407	1408	1409	1410	1411	1412	1413	1414	1415	1417	1419			
1420	1421	1424	1425	1426	1427	1428	1429	1432	1433	1434			
1436	1437	1438	1442	1443	1446	1447	1452	1453	1454	1455			
1456	1460	1462	1466	1468	1469	1470	1471	1472	1473	1477			
1478	1479	1480	1481	1484	1486	1487	1491	1492	1493	1494			
1496	1497	1501	1504	1505	1508	1509	1510	1512	1514	1515			



## ACTIVATION ANALYSIS-TECHNIQUE USED

## GAMMA SPECTROMETRY (CONTINUED)

1517	1518	1519	1521	1522	1525	1526	1527	1528	1529	1530
1531	1532	1533	1535	1537	1538	1539	1540	1541	1542	1543
1548	1549	1550	1551	1552	1554	1555	1556	1558	1559	1560
1563	1564	1565	1566	1567	1568	1569	1571	1572	1574	1578
1581	1583	1584	1585	1586	1587	1588	1589	1590	1591	1592
1595	1596	1597	1598	1599	1601	1603	1606	1607	1610	1613
1614	1615	1617	1620	1628	1631	1633	1634	1635	1639	1642
1643	1644	1645	1646	1648	1649	1652	1653	1654	1655	1656
1665	1670	1672	1673	1676	1677	1678	1679	1680	1682	1689
1691	1692	1697	1699	1702	1705	1706	1707	1708	1709	1710
1712	1715	1717	1719	1721	1722	1723	1725	1732	1734	1735
1736	1737	1738	1739	1740	1741	1742	1744	1745	1746	1748
1749	1750	1759	1760	1761	1765	1766	1767	1769	1781	1786
1789	1790	1791	1793	1794	1795	1797	1798	1799	1803	1804
1805	1806	1809	1813	1815	1817	1821	1825	1827	1828	1829
1831	1832	1833	1835	1837	1840	1842	1844	1848	1851	1854
1855	1856	1860	1863	1875	1878	1881	1882	1884	1885	1887
1889	1890	1891	1892	1893	1894	1896	1897	1899	1900	1901
1902	1904	1905	1906	1907	1910	1911	1912	1917	1920	1921
1925	1926	1929	1930	1931	1934	1936	1938	1939	1942	1943
1944	1950	1953	1954	1956	1957	1960	1961	1962	1964	1966
1968	1969	1970	1971	1973	1975	1978	1981	1982	1983	2121
2122	2123	2126	2129	2141	2144	2145	2154	2157	2251	2272
2283	2296	2297	2327	2337	2347	2354	2358	2369	2376	2381
2384	2385	2386	2403	2418	2422	2426	2430	2431	2433	2440
2441	2445	2447	2453	2455	2464	2474	2480	2481	2493	2494
2495	2496	2497	2498	2499	2502	2503	2504	2505	2506	2507
2508	2509	2511	2515	2517	2519	2524	2525	2526	2535	2537
2539	2540	2542	2548	2549	2550	2551	2552	2553	2558	2562
2563	2565	2569	2571	2573	2578	2580	2584	2586	2590	2591
2596	2598	2601	2605	2607	2608	2611	2613	2614	2615	2618
2619	2621	2622	2623	2626	2638	2639	2641	2645	2649	2651
2652	2658	2660	2661	2663	2664	2665	2666	2668	2669	2671
2676	2678	2683	2684	2685	2686	2688	2689	2690	2694	2695
2696	2699	2701	2705	2707	2711	2713	2715	2717	2718	2721
2722	2725	2727	2728	2730	2732	2733	2734	2735	2737	2739
2740	2741	2744	2749	2750	2752	2753	2754	2756	2758	2760
2764	2766	2769	2773	2774	2775	2776	2782	2786	2789	2790
2791	2792	2793	2795	2797	2798	2800	2801	2802	2804	2805
2819	2821	2836	2838	2840	2844	2846	2848	2852	2870	2871
2876	2881	2882	2888	2889	2892	2902	2904	2920	2921	2922
2923	2926	2929	2930	2931	2933	2936	2938	2948	2950	2957
2964	2965	2972	2973	2977	2978	2981	2983	2984	2989	2991
2999	3005	3027	3060	3061	3062	3063	3064	3065	3070	3073
3075	3076	3077	3079	3081	3085	3087	3088	3090	3091	3093
3098	3283	3328	3341	3342	3344	3345	3346	3350	3352	3355
3357	3358	3360	3363	3364	3365	3366	3367	3368	3369	3370



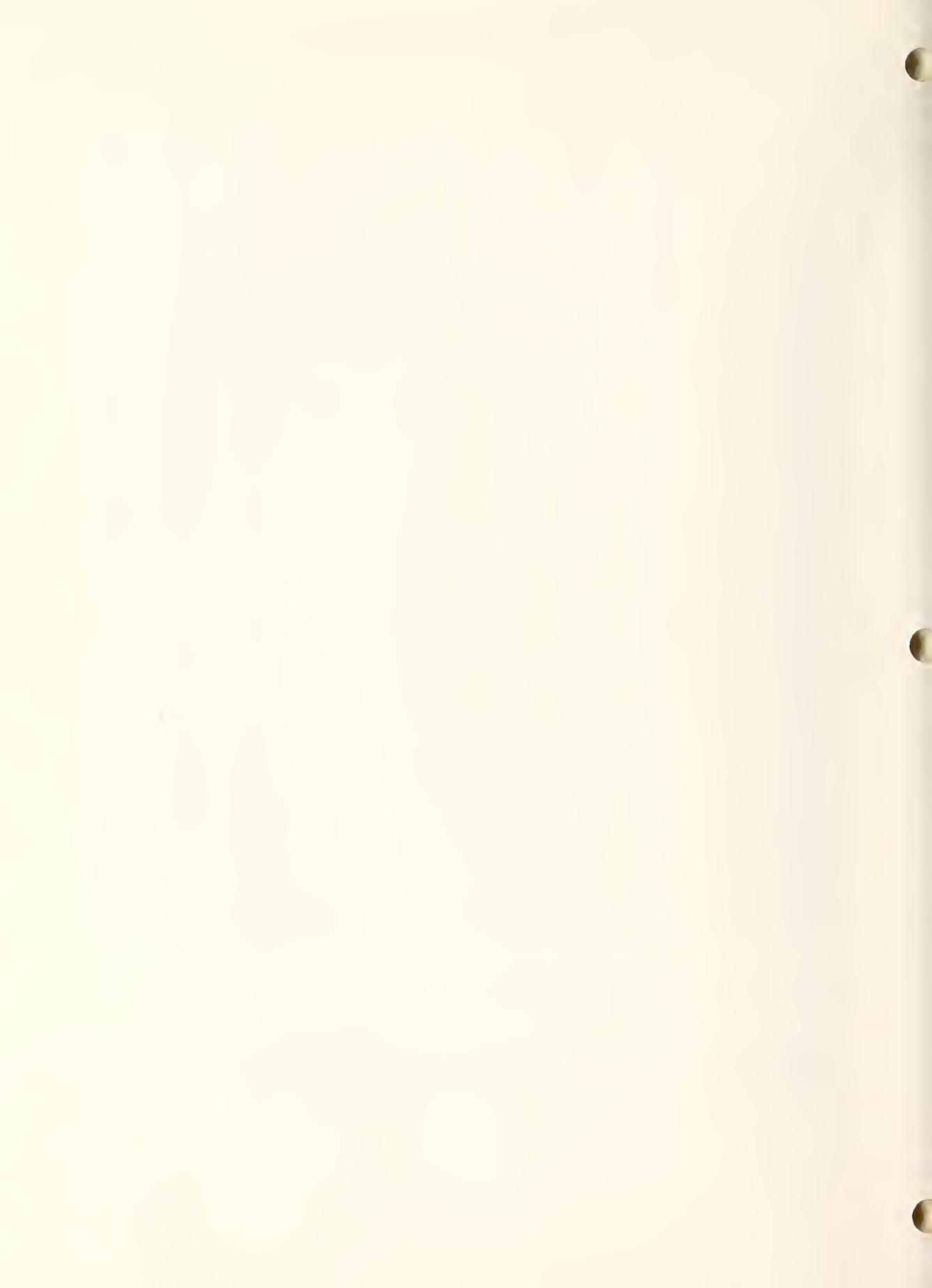
## ACTIVATION ANALYSIS-TECHNIQUE USED

## GAMMA SPECTROMETRY (CONTINUED)

3371	3372	3373	3374	3375	3382	3383	3384	3385	3386	3387
3388	3395	3396	3411	3414	3418	3461	3467	3468	3470	3474
3475	3476	3483	3485	3486	3487	3488	3490	3491	3492	3502
3504	3514	3530	3553	3560	3661	3708	3710	3713	3716	3718
3723	3724	3725	3730	3731	3736	3738	3739	3740	3741	3745
3752	3753	3757	3759	3766	3768	3769	3770	3771	3774	3775
3780	3781	3783	3785	3788	3789	3790	3791	3794	3797	3799
3803	3804	3808	3809	3810	3841	3948	3949	3954	3955	3956
3957	3958	3959	3960	3961	3964	3973	3975	3976	3980	3982
3986	3988	3989	3990	3991	3992	3994	3996	3997	3998	4153
4189	4190	4191	4192	4193	4194	4195	4196	4197	4201	4203
4205	4208	4209	4214	4215	4216	4217	4221	4224	4226	4227
4230	4231	4232	4240	4244	4249	4250	4252	4253	4254	4255
4258	4260	4261	4263	4267	4269	4270	4272	4273	4274	4276
4281	4282	4283	4284	4285	4286	4290	4291	4293	4294	4298
4299	4300	4301	4302	4303	4305	4306	4307	4308	4309	4311
4314	4315	4321	4322	4328	4329	4347	4381	4392	4406	5307
5308	5311	5321	5322	5325	5326	5327	5332	5335	5336	5338
5341	5343	5344	5345	5347	5349	5358	5359	5363	5364	5365
5366	5368	5369	5370	5378	5379	5380	5382	5383	5384	5386
5389	5390	5393	5394	5398	5401	5402	5407	5409	5410	5415
5416	5420	5428	5430	5431	5432	5435	5438	5444	5445	5447
5448	5449	5450	5451	5452	5498	5499	5500	5502	5510	5571
5579	5619	5697	5698	5699	5703	5704	5705	5706	5707	5708
5712	5713	5714	5717	5718	5720	5721	5725	5726	5727	5728
5729	5730	5732	5739	5740	5742	5743	5746	5747	5749	5750
5751	5753	5755	5759	5760	5761	5764	5768	5770	5771	5775
5776	5777	5778	5781	5785	5786	5787	5790	5792	5793	5808
5853	5858	5860	5868	5870	5872	5873	5874	5884	5920	5921
5922	5923	5924	5925	5926	5934	5935	5939	5940	5941	5942
5948	5949	5950	5951	5954	5955	5958	5959	5960	5961	5962
5963	5964	5967	5969	5970	5972	5975	5976	5978	5979	5981
5983	5991	5992	5994	5995	5996	5999	6001	6002	6005	6006
6007	6008	6010	6011	6013	6014	6015	6016	6023	6029	6039
6040	6043	6048	6050	6052	6054	6055	6056	6058	6061	6062
6063	6064	6065	6067	6068	6071	6074	6077	6080	6081	6085

## SOLID STATE GAMMA SPECTROMETRY

845	865	1573	2146	2254	2350	2532	2559	2579	2604	2762
2945	3491	3791	3985	4005	4204	4280	5421	5583	5587	5766
5788	5875	5936	5975	5977	5981	6000	6012	6029	6069	6074



# ACTIVATION ANALYSIS-TECHNIQUE USED

## BETA AND ALPHA SPECTROMETRY

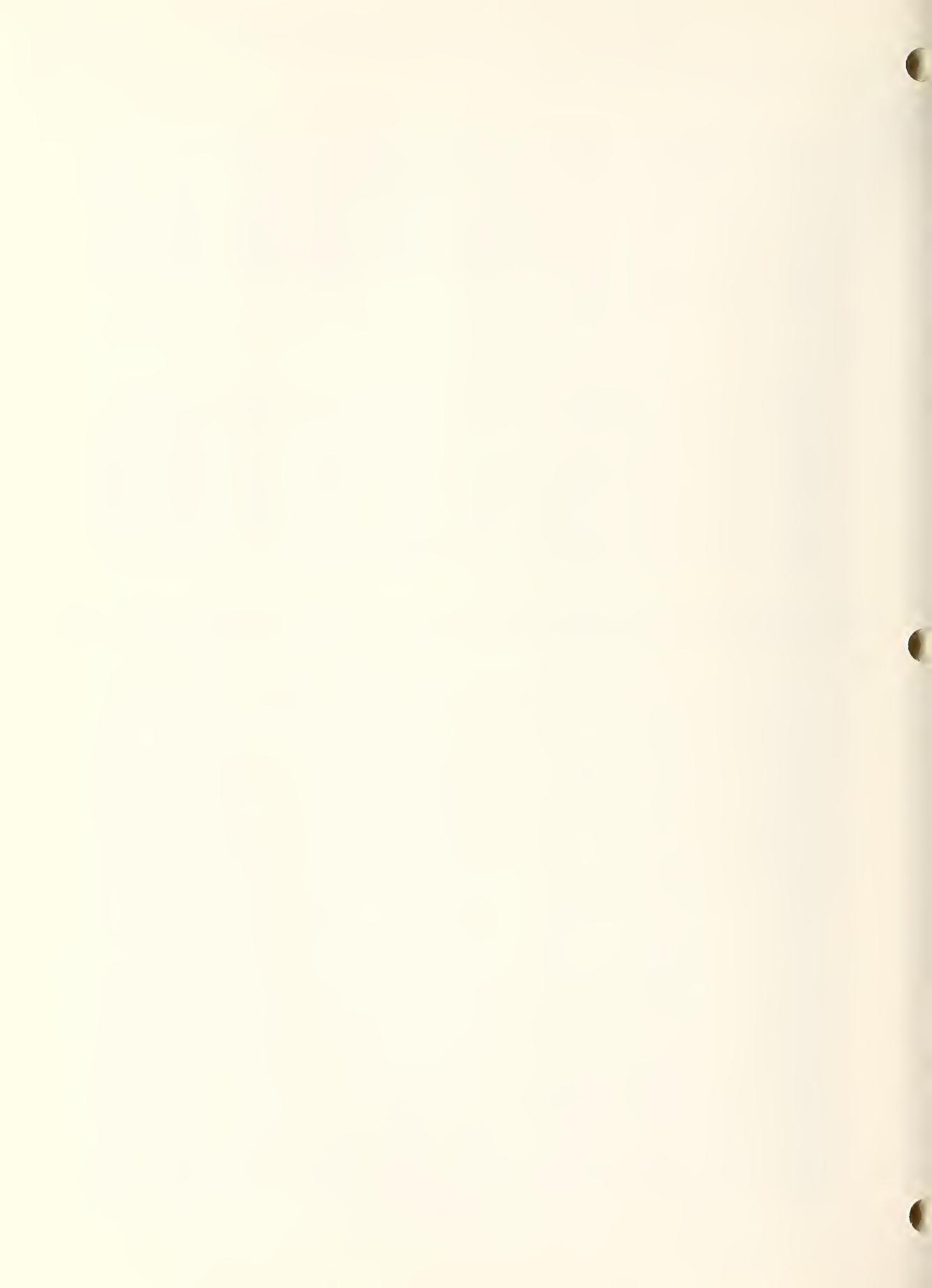
140 146 252 255 259 261 262 267 269 270 271 272 279 322  
 326 347 349 411 416 421 424 431 449 451 455 468 470 530  
 692 811 828 838 1076 1101 1123 1124 1125 1127 1145 1155  
 1158 1159 1160 1162 1169 1180 1183 1187 1190 1191 1197  
 1231 1237 1242 1263 1357 1401 1404 1416 1424 1431 1437  
 1455 1486 1494 1618 1885 2052 2157 2407 2518 2523 3091  
 3093 3464 3760 3993 4001 4227 4248 4262 4289 5343 5344  
 5345 5347 5444 5546

## COINCIDENCE SPECTROMETRY

45 46 49 105 110 125 140 155 166 208 312 393 428 432  
 594 621 653 682 822 842 845 849 850 862 1012 1059 1071  
 1076 1079 1098 1099 1115 1194 1326 1340 1466 1500 1532  
 1578 1612 1616 1623 1735 1801 1814 1859 1860 1886 1914  
 1958 1965 1967 2500 2516 2529 2544 2546 2610 2612 2644  
 2772 2796 2971 2979 2987 3467 3473 3491 3720 3721 3738  
 3778 3970 3978 4001 4204 4386 5330 5343 5385 5399 5417  
 5591 5621 5782 5931 5975 6029 6053 6072

## NON-DISCRIMINATORY COUNTING (A, B, Y) BUT INCLUDES HALF LIFE AND ABSORBER MEASUREMENTS, AUTORADIOGRAPHY, EMULSIONS

6 7 8 10 11 12 13 22 23 24 26 28 30 31 32 35 37 47 51  
 52 53 54 61 62 63 64 65 66 67 68 69 73 75 79 83 84 85  
 87 93 96 97 98 100 102 103 105 108 109 114 115 118 119  
 120 121 122 123 124 126 133 134 135 138 139 141 142 143  
 144 147 151 154 158 161 163 166 167 171 174 176 178 180  
 181 186 187 188 189 194 196 198 200 209 210 211 213 214  
 216 217 219 221 222 223 225 226 227 228 229 230 231 232  
 233 234 235 236 243 245 249 250 256 266 274 275 287 301  
 327 333 346 354 358 360 361 362 363 366 378 379 382 384  
 385 396 397 398 400 402 408 413 417 429 436 437 438 443  
 465 467 474 477 478 481 483 485 490 491 492 493 499 501  
 509 512 522 524 537 538 553 563 571 578 580 589 591 595  
 602 610 612 622 623 629 631 651 652 653 654 669 670 674  
 675 676 677 688 692 699 705 723 730 736 739 744 755 757  
 760 774 775 776 778 779 783 792 853 858 864 869 871 881  
 883 909 910 911 914 916 921 922 923 928 929 937 939 941  
 949 952 954 963 965 967 970 973 976 979 985 1013 1015  
 1016 1018 1023 1028 1030 1057 1061 1062 1078 1080 1081  
 1082 1083 1085 1086 1087 1088 1096 1104 1107 1108 1109  
 1111 1113 1121 1123 1131 1133 1135 1143 1146 1147 1219  
 1252 1257 1259 1260 1262 1266 1267 1271 1274 1275 1278  
 1285 1287 1292 1293 1295 1298 1307 1329 1342 1351 1356  
 1373 1380 1385 1389 1391 1392 1394 1399 1449 1457 1458



## ACTIVATION ANALYSIS-TECHNIQUE USED

NON-DISCRIMINATORY COUNTING (A, B, Y) BUT INCLUDES HALF  
LIFE AND ABSORBER MEASUREMENTS, AUTORADIOGRAPHY,  
EMULSIONS (CONTINUED)

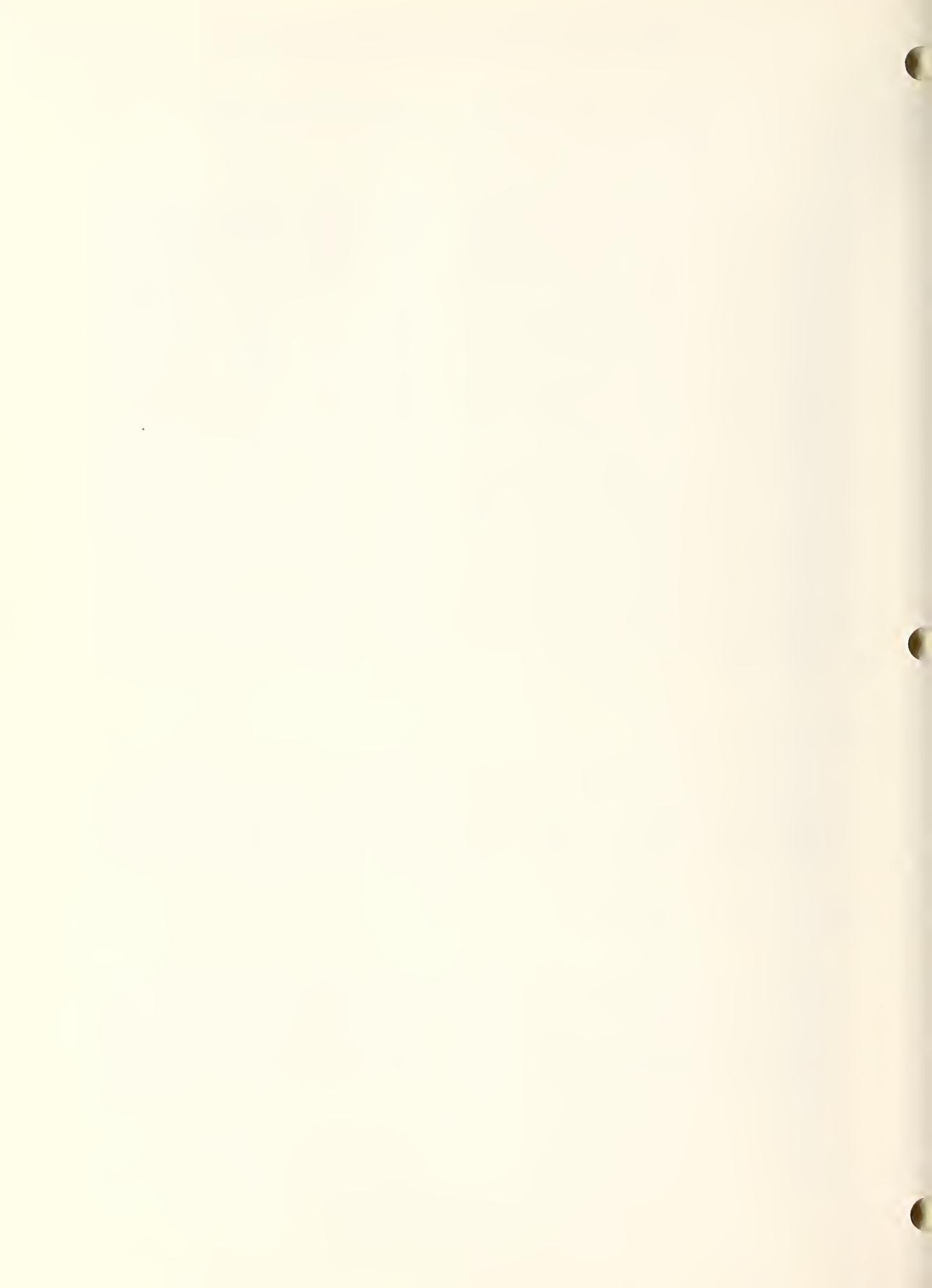
1462	1471	1473	1474	1477	1478	1479	1483	1494	1495	1506
1513	1520	1540	1546	1547	1563	1569	1577	1581	1601	1604
1621	1628	1636	1655	1660	1664	1671	1675	1677	1683	1685
1686	1693	1694	1700	1711	1713	1720	1726	1730	1743	1747
1751	1752	1754	1758	1762	1763	1764	1770	1772	1773	1774
1778	1780	1786	1787	1788	1798	1800	1812	1814	1822	1824
1830	1834	1839	1841	1844	1848	1858	1861	1862	1865	1870
1871	1872	1873	1874	1879	1888	1911	1924	1937	1945	1948
1952	1955	1959	1974	1976	1977	1979	1980	2323	2340	2384
2386	2409	2444	2455	2501	2523	2534	25E4	2597	2633	2636
2640	2643	2654	2657	2658	2661	2680	2687	2712	2714	2717
2718	2721	2731	2735	2748	2759	2794	2797	2839	2845	2849
2853	2865	2873	2878	2920	2921	2927	2932	2940	2942	2943
2949	2964	2969	2976	2982	3064	3105	3361	3376	3391	3394
3397	3414	3469	3481	3482	3491	3669	37n9	3714	3716	3726
3727	3729	3730	3732	3736	3746	3755	3767	3783	3962	3965
3976	3977	3981	3987	3995	4207	4267	4278	4296	4315	4319
4388	5295	5320	5350	5353	5356	5357	53E9	5370	5381	5395
5397	5398	5403	5405	5406	5408	5422	5429	5439	5472	5501
5515	5517	5547	5581	5719	5731	5752	5769	5848	5851	5923
5927	5932	5933	5938	5965	5984	6004	6017	6031	6044	6063
6073	6086									

## NEUTRON COUNTING

82	88	169	170	206	207	321	380	479	514	554	770	782	808
819	839	841	843	868	904	905	908	978	983	1025	1070	1136	
1270	1280	1302	1311	1393	1435	1637	1642	1782	1811	1822			
1857	1906	2303	2318	2634	2751	2777	2963	2987	3491	3711			
4277	5238	5262	5319	5323	5551	5735	5765	5957					

## PROMPT GAMMA COUNTING

184	185	312	383	665	713	1026	1049	1061	1178	1336	1337
1553	1576	1611	1651	1685	1772	1783	1785	1843	1898	1935	
1951	1984	1985	2146	2254	2364	2429	2504	2530	2652	2684	
2933	3033	3078	3089	3126	3362	3399	3466	3717	3741	3753	
3811	3976	3979	4000	5177	5261	5372	53E4	5566	5577	5733	
5756	5773	5779	5919								



## ACTIVATION ANALYSIS-TECHNIQUE USED

NEUTRON FLUX DETERMINATION, INCLUDES SAMPLE SELF-SHIELDING AND FLUX PERTURBATIONS

125	161	179	186	205	209	212	221	304	305	306	316	347	377
391	396	399	403	467	510	552	581	609	662	701	735	743	794
828	832	840	843	845	853	854	868	903	1037	1044	1054	1064	
1070	1085	1116	1156	1158	1161	1169	1261	1303	1331	1335			
1347	1349	1418	1419	1420	1437	1452	1467	1477	1487	1511			
1570	1593	1598	1624	1627	1641	1642	1647	1648	1659	1676			
1696	1716	1720	1827	1877	1912	1936	1946	1950	1958	1981			
1982	2280	2480	2537	2625	2754	2802	2957	3414	3479	3485			
3719	3797	4224	5339	5447	5602	5860	5868	5962					

CHARGE PARTICLE FLUX DETERMINATION, INCLUDES SAMPLE SELF-SHIELDING

314 381 1312 3403 3719 4215

PHOTONUCLEAR FLUX DETERMINATION, INCLUDES SAMPLE SELF-SHIELDING

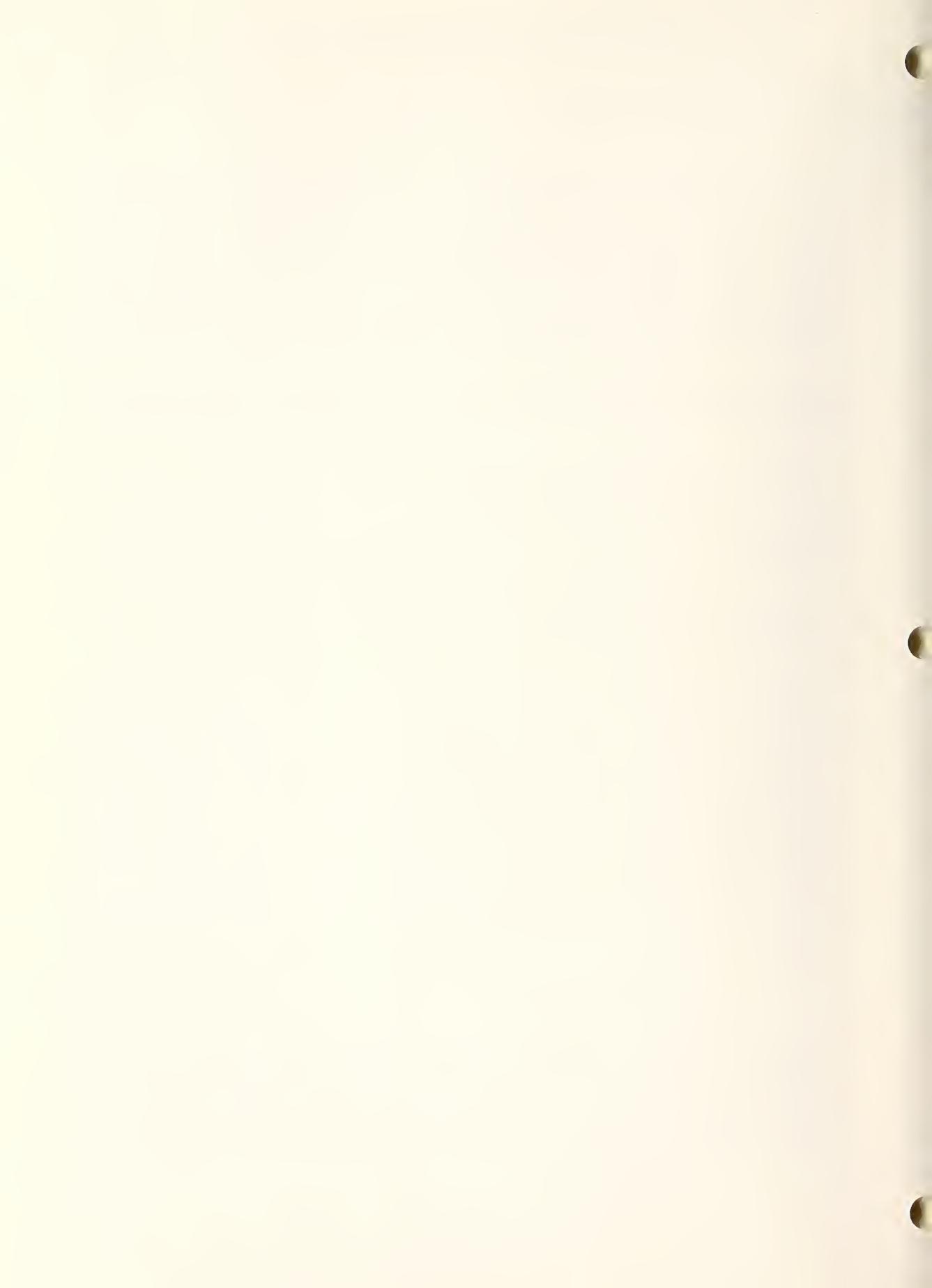
1014 1178 3719 3791 5379

INTERFERING NUCLEAR REACTIONS

108	114	131	157	196	201	314	332	346	347	352	361	386	399
432	461	493	516	518	544	552	555	567	578	580	583	588	595
601	614	622	662	676	687	701	703	705	711	727	819	822	828
831	835	842	844	850	856	868	940	977	986	1010	1012	1104	
1144	1145	1158	1160	1161	1180	1183	1184	1190	1192	1194			
1198	1199	1341	1347	1375	1386	1398	1400	1408	1413	1420			
1424	1425	1432	1433	1436	1455	1456	1477	1499	1507	1520			
1525	1528	1598	1599	1601	1628	1647	1678	1731	1816	1899			
1907	1911	1914	1920	1937	1938	1950	1968	2259	2283	2369			
2495	2499	2515	2643	2662	2681	2723	2754	2767	2839	3384			
3403	3414	3461	3470	3479	3485	3993	3994	4201	5341	5381			
5382	5757	5978											

OTHER ERRORS ASSOCIATED WITH IRRADIATION

131	205	212	291	295	297	300	306	322	328	344	346	388	399
476	505	533	614	620	621	622	828	835	876	842	845	850	
1087	1261	1442	1528	1598	1647	1675	1676	1729	1731	1889			
1910	1956	1972	1981	2681	2849	2948	2990	3101	3403	3479			
3488	3781	3791	4206	4213	4224	4325	5379	5602	6066				



# ACTIVATION ANALYSIS-TECHNIQUE USED

## COUNTING ERRORS AND CORRECTIONS

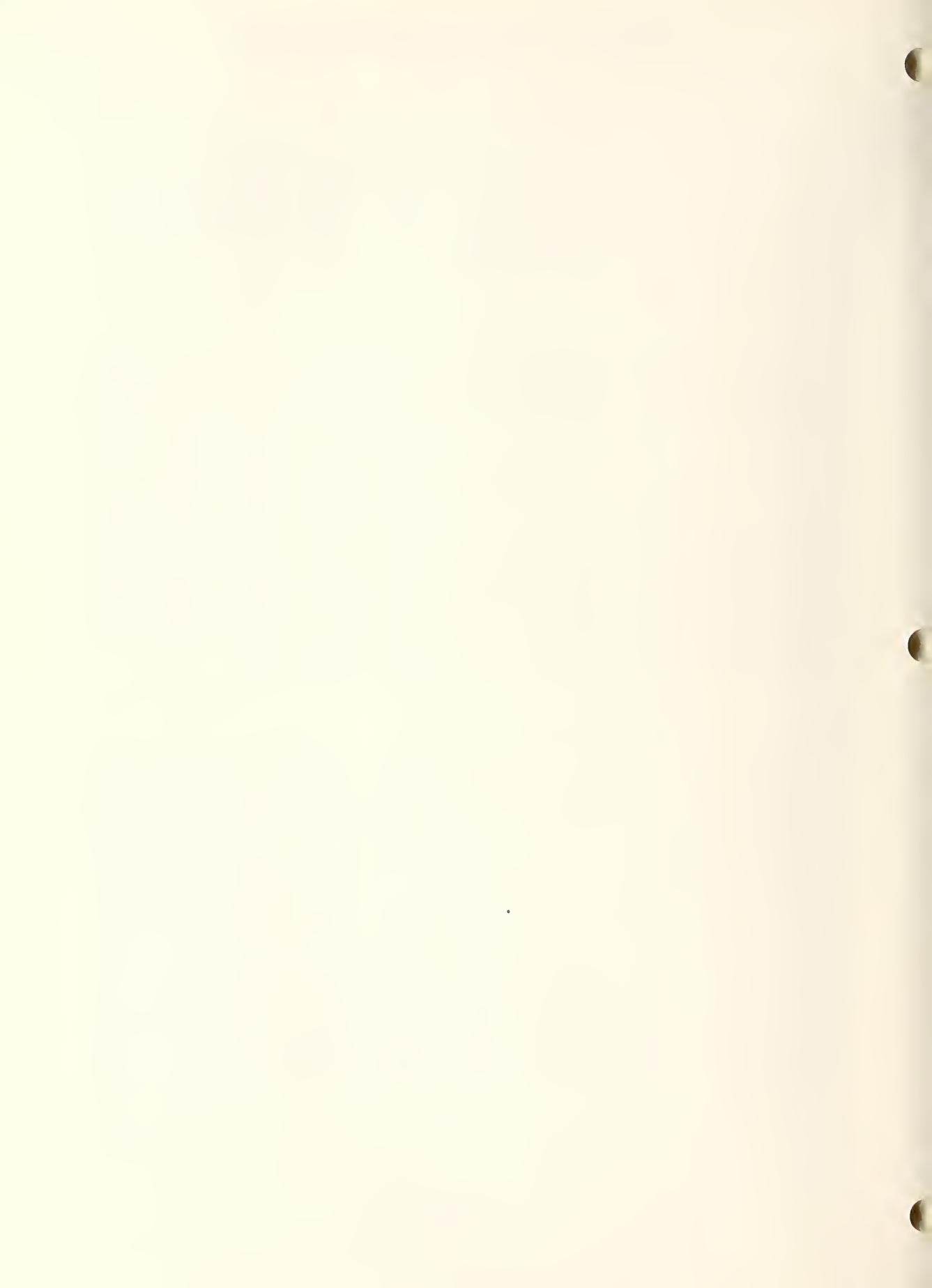
173 184 185 242 312 322 344 391 399 455 468 585 592 610  
 614 619 620 621 076 711 739 843 854 1090 1136 1161 1177  
 1178 1182 1187 1191 1195 1196 1199 1309 1347 1434 1601  
 1643 1662 1676 1684 1729 1873 1936 1937 1939 2280 2480  
 2497 2503 2580 2587 2643 2660 2692 3374 3466 3468 3479  
 3499 3791 4206 4213 4224 5385

## PRECISION-ACCURACY DISCUSSED

57 105 108 110 113 114 130 201 205 212 255 263 267 284  
 285 286 287 288 289 290 305 312 322 329 337 342 344 399  
 400 519 549 553 583 609 614 621 622 656 691 739 808 840  
 841 842 843 853 854 863 866 868 952 1017 1027 1040 1064  
 1076 1080 1082 1084 1085 1090 1094 1160 1162 1167 1169  
 1171 1172 1175 1178 1180 1181 1182 1183 1184 1187 1191  
 1193 1196 1199 1255 1328 1347 1362 1414 1415 1439 1442  
 1453 1462 1466 1484 1505 1518 1528 1537 1541 1598 1599  
 1627 1628 1641 1643 1647 1729 1731 1782 1815 1865 1872  
 1873 1885 1889 1912 1913 1950 1967 1969 1979 1981 1983  
 2157 2455 2499 2503 2525 2534 2537 2539 2541 2542 2549  
 2652 2686 2754 2755 2777 2836 2849 2873 3079 3091 3099  
 3368 3381 3382 3418 3482 3488 3514 4196 4203 4276 4278  
 5341 5353 5366 5368 5372 5381 5385 5390 5713

## SENSITIVITY TABLES

16 111 130 132 141 162 164 201 203 205 218 281 293 294  
 295 296 297 298 312 337 340 342 343 344 345 347 409 435  
 446 447 449 566 580 584 603 618 641 643 644 646 659 663  
 668 671 678 679 685 702 703 708 722 736 748 751 808 810  
 835 836 837 841 843 846 850 852 859 873 877 890 894 901  
 918 942 951 972 1039 1040 1049 1051 1065 1088 1097 1144  
 1148 1152 1154 1162 1166 1172 1190 1193 1196 1304 1312  
 1315 1327 1347 1352 1353 1355 1361 1375 1404 1407 1416  
 1417 1421 1425 1439 1464 1465 1503 1522 1524 1536 1540  
 1620 1642 1656 1660 1669 1673 1676 1691 1731 1755 1808  
 1838 1854 1873 1874 1875 1881 1885 1889 1903 1911 1935  
 1940 1941 2452 2510 2567 2568 2663 2690 2697 2799 2924  
 2937 2939 3059 3071 3082 3091 3366 3395 3483 3487 3508  
 3756 3772 3793 3803 3978 3980 4294 5317 5372 5379 5384  
 5389 5993



## ACTIVATION ANALYSIS-TECHNIQUE USED

### PRECONCENTRATION, CONTAMINATION, COLLECTION AND HANDLING TECHNIQUES

47 61 160 179 183 192 263 322 331 354 377 385 422 437  
438 477 493 511 542 543 586 614 708 721 813 829 850 851  
932 933 1107 1129 1141 1143 1181 1242 1281 1342 1404  
1409 1412 1416 1427 1428 1432 1436 1455 1462 1463 1478  
1479 1497 1518 1526 1529 1609 1628 1636 1653 1655 1708  
1722 1747 1750 1770 1774 1811 1832 1835 1874 1914 2440  
2511 2540 2598 2621 2635 2637 2665 2672 2685 2687 2695  
2696 2734 2748 2752 2800 2904 2936 2981 2984 2989 3100  
3358 3507 3508 3509 3724 3959 3960 3964 4201 4217 4219  
4273 4296 4302 4314 5341 5357 5358 5359 5368 5451 5869  
5873 5929 5959 5962 5963 6002 6052 6068 6076 6081

### IRRADIATION TECHNIQUES, SAMPLE HANDLING AND FACILITIES, FLUX MONITORS

125 131 146 181 192 199 205 280 281 285 316 324 341 348  
455 500 614 625 631 635 658 670 702 714 719 737 765 819  
824 843 846 848 852 898 950 961 979 1029 1048 1054 1055  
1083 1097 1116 1136 1145 1148 1248 1256 1258 1269 1277  
1407 1418 1437 1439 1440 1517 1523 1528 1539 1545 1627  
1642 1658 1659 1661 1663 1676 1695 1696 1698 1701 1702  
1706 1712 1717 1722 1729 1845 1853 1861 1864 1868 1875  
1883 1889 1912 1916 1920 1922 1923 1940 1945 1956 1957  
1965 2104 2147 2335 2410 2501 2524 2527 2536 2542 2548  
2549 2564 2576 2598 2659 2672 2787 2849 2924 2936 2937  
2939 2948 3333 3376 3403 3461 3507 3509 3745 3751 3790  
3791 3796 3797 3808 3956 3981 4251 4260 5318 5425 5443  
5451 5594 5610 5694 5711 5733 5748 5868 5873 5943 5952  
5963 5983 6059

### ACTIVATION ANALYSIS STANDARDS AND STANDARD REFERENCE MATERIALS

205 306 314 361 362 363 365 367 371 572 581 587 600 676  
687 808 820 841 953 1076 1126 1187 1255 1282 1293 1431  
1433 1596 2501 2537 3413 3472 3481 3560 432n 5985



## ACTIVATION ANALYSIS-TECHNIQUE USED

### COMPUTER APPLICATIONS AND NUMERICAL METHODS

18 36 58 156 199 201 273 520 527 534 574 590 642 693  
707 759 826 845 977 1033 1041 1058 1073 1251 1328 1359  
1419 1457 1508 1556 1557 1567 1580 1617 1620 1622 1691  
1702 1735 1737 1790 1809 1819 1826 1851 1866 1868 1919  
1947 2107 2116 2387 2450 2494 2506 2508 2514 2515 2521  
2533 2538 2545 2547 2548 2574 2602 2673 2689 2691 2702  
2706 2715 2740 2760 2767 2801 3082 3283 3353 3356 3380  
3381 3391 3500 3514 3550 3552 3662 3741 3776 3791 3798  
3809 4200 4210 4243 4275 4287 4326 4377 4393 4397 5348  
5361 5376 5498 5513 5546 5583 5587 5618 5620 5740 5744  
5745 5778 5937 5971 6046 6082 6087

### DATA HANDLING SYSTEMS

590 931 961 1116 1279 1567 1620 1670 1702 1712 1954  
2547 2702 2703 2707 2740 2951 2968 3356 3662 3791 4199  
4200 5434

### ELECTRONICS IN ACTIVATION ANALYSIS

318 352 389 393 655 682 637 1058 1079 1116 1350 1358  
1602 1612 1944 1984 2252 2500 2529 2538 2561 2650 2702  
2703 2704 2710 2738 2740 2779 2801 3117 3424 3426 3438  
3443 3521 3548 3662 3741 3790 3791 4280 4289 5380 5414  
5434 5943



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