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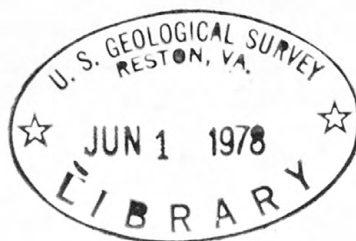
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A Table of Photopeaks Useful in Nuclear Geophysics

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Abstract

The table lists full-energy, single-escape, and double-escape photopeak energies corresponding to about 1800 X- and gamma rays derived from natural radioactivity, X-ray fluorescence, neutron reactions, and induced radioactivity. Photon lines have been selected on the basis of their importance in borehole logging by nuclear methods. The mode of production of each photopeak and the half lives of natural and artificial radionuclides are given, but intensity information is omitted.

Introduction

In-situ neutron activation of geologic material and high-resolution spectrometry of the resulting radiations yield complex spectra of photopeaks that may be derived from various nuclear reactions, scattering, and decay. Finding no published table, we have gradually compiled a list of energies of characteristic photons resulting from natural radioactivity and from irradiation of major and minor elements by neutrons and photons.

A photon of 1022-keV energy or greater may be absorbed by the detector by creation of an electron-positron pair. When the positron quickly recombines with another electron, two 511-keV photons are produced, either or both of which may escape from the detector. Photopeaks corresponding to the loss of none, one, or both of the photons consequently appear in the spectrum for each line of greater than 1022-keV energy. The photopeaks are denoted respectively as the full-energy, single-escape, and double-escape peaks. Because it is not immediately evident upon examination of a spectrum whether a given photopeak is a full-energy or an escape peak, the compilation includes the escape peaks.

The table is resident in the core of a minicomputer used to process spectra. The need for economy of core usage and a desire to avoid the extra bookkeeping effort weighed against carrying reference citations with the entries. Intensity information has been omitted, partly for economy of core usage, but mainly because the observed intensities may differ substantially from published values, owing to energy-dependent attenuation of photons and to capture of non-thermal neutrons.

Entry notation

For each entry the first number is the photopeak energy to the nearest integral keV (1 keV=0.1602 fJ). If the photopeak is an escape peak, an apostrophe (') indicates a single-escape peak or a quotation mark (") indicates a double-escape peak, and the number following is the full-energy value. The element symbol and mass number of the parent or target nucleus follows. Within brackets is indicated one of 8 modes of production of the photon:

[x-r] X-ray
[nat] gamma ray from decay of natural radionuclide
[dec] gamma ray from decay of artificial radionuclide
[n,g] gamma ray from prompt radiative capture of neutron
[nn'] gamma ray from inelastic neutron scattering
[n'd] gamma ray from decay of nucleus excited by inelastic neutron scattering
[n,a] gamma ray from nucleus excited by (n,alpha) reaction
[mis] gamma ray from miscellaneous reactions, for example, (n,2n) or (n,p)

Following the [nat] or [dec] mode is the half life of the parent nucleus. Following the [n'd] mode is the half life of the product nucleus. Minor inconsistencies in half life may be present, because the entries list the best values known to us at the time of inclusion in the table. Half-life time units are abbreviated: s, seconds; m, minutes; h, hours; d, days; a, years; k, kiloyears; long, >511 kiloyears.

No mass numbers are given for X-rays, for which the mass numbers are irrelevant. Mass numbers are also missing for many prompt radiative capture gamma rays identified from literature based on irradiation of samples of elements having more than one natural isotope.

Sources of data

In addition to experimental data from our laboratory, data from many sources have been used for compilation of the table. The principal source for mass numbers greater than 44 has been the series of compilations of the Nuclear Data Group of the Oak Ridge National Laboratory. X-ray energies were obtained from the table by Fine and Hendee (1959). Principal references for the decay nuclides have been the tables by Erdtmann and Soyka (1974) and by Filby and others (1970) and the catalogue of spectra by Heath (1974). Most prompt radiative capture data are from Rasmussen and others (1969).

References

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5 Ti- [x-r]
 5 V- [x-r]
 5 Cr- [x-r]
 6 Mn- [x-r]
 6 Fe- [x-r]
 7 Co- [x-r]
 7 Ni- [x-r]
 8 Cu- [x-r]
 9 Zn- [x-r]
 9 Ga- [x-r]
 9[#]1031 Rb- [n,g]
 10 Pb- [x-r]
 10 Ge- [x-r]
 11 As- [x-r]
 11 Se- [x-r]
 12 Br- [x-r]
 12 Rn- [x-r]
 13 Kr- [x-r]
 13 Rb- [x-r]
 13 Th-231 [nat] 25.6 h
 13 Po- [x-r]
 13 U- [x-r]
 14 Sr- [x-r]
 14 Rn- [x-r]
 15 Y- [x-r]
 16 Zr- [x-r]
 16 U- [x-r]
 16 Zr- [x-r]
 16[#]1038 Fe- [nn']
 17 Nb- [x-r]
 17 Pb-210 [nat] 22.3 a
 17 Rn- [x-r]
 17 Mo- [x-r]
 17[#]1039 Cu-66 [dec] 5.1 m
 18 Tc- [x-r]
 18[#]1040 Si-28 [nn']
 18[#]1040 Sc-48 [mis]
 19 Ru- [x-r]
 20 Rh- [x-r]
 21 Pd- [x-r]
 22 Ag- [x-r]
 23 Cd- [x-r]
 24 In- [x-r]
 25 Sn- [x-r]
 26 Am-241 [dec] 458.0 a
 26 Th-231 [nat] 25.5 h
 26 Ra-228 [nat] 5.8 a
 26 Sb- [x-r]
 26[#]1048 Pd- [n,g]
 27 Pa-231 [nat] 32.8 k
 27 Te- [x-r]
 28 I- [x-r]
 29 Xe- [x-r]
 29 Np-237 [dec] long
 29 I- [x-r]
 30 Xe- [x-r]
 30[#]1052 Bi-214 [nat] 19.9 m
 31 Cs- [x-r]
 32 Cs- [x-r]
 32 La- [x-r]

32 Ba- [x-r]
 33 Am-241 [dec] 458.0 a
 34 Ce- [x-r]
 35 Ce- [x-r]
 35 I-125 [dec] 60.2 d
 36 Pr- [x-r]
 36 Ba- [x-r]
 37 Nd- [x-r]
 38 Pm- [x-r]
 39 Pm- [x-r]
 40 Sm- [x-r]
 40 I-129 [dec] long
 40 Eu- [x-r]
 40 Bi-212 [nat] 60.6 m
 41"1063 Pb- [nn']
 42 Gd- [x-r]
 43 Gd- [x-r]
 43 Cf-252 [dec] 2.6 a
 44 Tb- [x-r]
 44 Am-243 [dec] 7.4 k
 44 U-239 [dec] 23.5 m
 45 Dy- [x-r]
 46 Dy- [x-r]
 47 Ho- [x-r]
 47 Pb-210 [nat] 22.3 a
 48 Ho- [x-r]
 48 Er- [x-r]
 48"1070 Bi-214 [nat] 19.9 m
 49 Er- [x-r]
 49"1071 P-31 [n,g]
 50 Yb- [x-r]
 50 Tm- [x-r]
 50 U-238 [nat] long
 50 Th-227 [nat] 18.6 d
 51 Tm- [x-r]
 52 Yb- [x-r]
 52 Pu-239 [dec] 24.1 k
 53 Lu- [x-r]
 53 U-234 [nat] long
 53 Pb-214 [nat] 26.8 m
 53 Re-103 [n'd] 57.0 m
 54 Lu- [x-r]
 55 Hf- [x-r]
 55"1077 Ga-68 [dec] 68.3 m
 55"1077 Zn- [n,g]
 56 Hf- [x-r]
 56 Ta- [x-r]
 57 Np-237 [dec] long
 58 Ta- [x-r]
 58 Ac-228 [nat] 6.1 h
 58 W- [x-r]
 59 Th-232 [nat] long
 59 W- [x-r]
 60 Re- [x-r]
 60 Am-241 [dec] 458.0 a
 60 W-183 [n'd] 5.5 s
 61 Re- [x-r]
 61 Os- [x-r]
 62 Th-227 [nat] 18.5 d
 63 Os- [x-r]

63 Ir- [x-r]
 63 Th-234 [nat] 24.1 d
 63[#]1085 Ge-77 [dec] 11.3 h
 64[#]1086 Eu-152 [dec] 12.7 a
 65 Ir- [x-r]
 65 Pt- [x-r]
 66[#]1088 O-16 [n,g]
 67 Pt- [x-r]
 67 Au- [x-r]
 68 Th-230 [nat] 80.0 k
 69 Hg- [x-r]
 69 Ge-72 [n,g]
 69 Au- [x-r]
 69[#]1091 Mo- [n,g]
 71 Hg- [x-r]
 71 Tl- [x-r]
 72 W-187 [dec] 23.9 h
 73 Tl- [x-r]
 73 Pb- [x-r]
 75 Am-243 [dec] 7.4 k
 75 Pb- [x-r]
 75 Bi- [x-r]
 75 U-239 [dec] 23.5 m
 75[#]1097 Fe-59 [dec] 44.6 d
 75[#]1097 In-116 [dec] 53.7 m
 76[#]1098 Ba- [nn']
 77 Bi- [x-r]
 77 Po- [x-r]
 77[#]1099 Co-59 [nn']
 78 Hg-197 [dec] 65.0 h
 79 At- [x-r]
 79 Po- [x-r]
 79[#]1101 Ge-73 [n,g]
 80 Th-227 [nat] 18.6 d
 81 Ba-133 [dec] 10.7 a
 81 Rn- [x-r]
 81[#]1103 Ge-74 [nn']
 82 At- [x-r]
 82[#]1104 Bi-214 [nat] 19.9 m
 83 Fr- [x-r]
 83 Xe-133 [dec] 5.3 d
 84 Th-228 [nat] 1.9 a
 84 Rn- [x-r]
 84 Tm-170 [dec] 129.0 d
 84 Th-231 [nat] 25.6 h
 84[#]1106 Ge-73 [n,g]
 85 Pb- [x-r]
 85 Ra- [x-r]
 85[#]1107 As-74 [mis]
 86 Fr- [x-r]
 86 Np-237 [dec] long
 87 Th-233 [dec] 22.1 m
 87 Pb- [x-r]
 87 Bi- [x-r]
 87[#]1109 Pb-211 [nat] 36.1 m
 88 Ra- [x-r]
 88 Ac- [x-r]
 88 Ag-109 [n'd] 40.0 s
 88 Cd-109 [dec] 1.2 a
 89 Cu-65 [n,g]

90 U-235 [nat] long
 90 Bi- [x-r]
 90 Th- [x-r]
 90^u1112 Eu-152 [dec] 12.7 a
 91 Ac- [x-r]
 93 U-235 [nat] long
 93 Pa- [x-r]
 93 Ag-107 [n'd] 44.3 s
 93 Th- [x-r]
 93 Th-234 [nat] 24.1 d
 93^u1115 Zn-65 [dec] 244.0 d
 94^u1116 Ni-65 [dec] 152.0 m
 95 Np-237 [dec] long
 95 Rn- [x-r]
 95 U- [x-r]
 95 Dy-165 [dec] 139.0 m
 96 Pa- [x-r]
 96 Se-79 [dec] 3.9 m
 97 Np- [x-r]
 98 Rn- [x-r]
 98 U- [x-r]
 98^u1120 Bi-214 [nat] 19.8 m
 98^u1120 Zr-92 [nn']
 98^u1120 Sc-46 [n'd] 83.8 d
 99 Pu- [x-r]
 99 Ac-228 [nat] 6.1 h
 100 Cm- [x-r]
 100 Cf-252 [dec] 2.6 a
 100^u1122 Cu- [nn']
 101 Np- [x-r]
 102 Am- [x-r]
 102 Th-231 [nat] 25.0 h
 103 Se-81 [dec] 56.8 m
 104 Pu- [x-r]
 104 Cm- [x-r]
 105 U-235 [nat] long
 106 Am- [x-r]
 106 Th- [x-r]
 107 Bk- [x-r]
 107^u1129 Mg- [n,g]
 109 Cm- [x-r]
 109 Th- [x-r]
 110 Cf- [x-r]
 110^u1132 Ge-73 [n,g]
 110^u1132 Cl- [n,g]
 112 Bk- [x-r]
 112^u1134 Bi-214 [nat] 19.9 m
 113 Th-226 [nat] 18.6 d
 113 U- [x-r]
 114 U- [x-r]
 115 Pb-212 [nat] 10.6 h
 115 Cf- [x-r]
 117 Ag-109 [n,g]
 117 Cm- [x-r]
 117 Am- [x-r]
 121 Th-230 [nat] 80.0 k
 121 U-234 [nat] long
 121 Se-75 [dec] 120.0 d
 122 Eu-152 [dec] 12.7 a
 122 Ra-223 [nat] 11.2 d

122 Co-57 [dec] 270.0 d
 122 Fe-56 [n,g]
 123 Eu-154 [dec] 16.0 a
 126 Mn-55 [nn']
 128^u1150 K- [nn']
 129 Ir-191 [n'd] <0.1 s
 129 Ac-228 [nat] 6.1 h
 130 Rn-219 [nat] 4.0 s
 132 Th-228 [nat] 1.9 a
 133^u1155 Bi-214 [nat] 19.8 m
 134 U-238 [n,g]
 136 Co-57 [dec] 270.0 d
 136 Se-75 [dec] 120.0 d
 137^u1159 K- [n,g]
 138^u1160 Ca- [nn']
 140 Ge-75 [dec] 48.0 s
 141 U-235 [nat] long
 141 Tc-99 [dec] 6.0 h
 142 Sc-46 [dec] 18.7 s
 143^u1165 Cl- [n,g]
 144 Th-230 [nat] 77.0 k
 144 Ra-223 [nat] 11.4 d
 144 U-235 [nat] long
 145 Fe-59 [dec] 44.6 d
 145^u1167 Mn-55 [nn']
 146 Ac-228 [nat] 6.1 h
 147 Ta-182 [dec] 15.8 m
 149^u1171 Sn- [n,g]
 151^u1173 Co-60 [dec] 5.3 a
 151^u1173 Ni-60 [nn']
 154 Ra-223 [nat] 11.2 d
 154 Ac-228 [nat] 6.1 h
 158 Au-199 [dec] 75.6 h
 159 Cu-63 [n,g]
 160 Cf-252 [dec] 2.6 a
 160 Ge-77 [dec] 54.0 s
 161 Se-77 [n'd] 17.5 s
 163 U-235 [nat] long
 166 Ba-139 [dec] 82.9 m
 169 Th-233 [dec] 22.1 m
 169^u1191 Co-59 [nn']
 170 O-16 [n,a]
 171 Mg-27 [dec] 9.5 m
 171^u1193 Ge-77 [dec] 11.3 h
 172 Ta-182 [dec] 15.8 m
 176 Ge-70 [n,g]
 177^u1199 Br- [n,g]
 178 Pr-27 [n,g]
 181 Rh-103 [n,g]
 181^u1203 Hg-199 [n,g]
 183^u1205 Ge-73 [n,g]
 184^u1206 Hf- [n,g]
 185 Ac-228 [nat] 6.1 h
 185 Ta-182 [dec] 15.8 m
 186 Cu-65 [n,g]
 186 Dy- [n,g]
 186 Ra-226 [nat] 1.6 k
 186 U-235 [nat] long
 186^u1208 Bi-214 [nat] 19.9 m
 187 Os- [n,g]

191 Nb-93 [n,g]
 191 Fe-59 [dec] 44.6 d
 191 Hg-197 [dec] 65.0 h
 192 Mo-101 [dec] 14.6 m
 193 Au-197 [n,g]
 194 Pb-204 [n'd] 67.0 m
 195 Th-233 [dec] 22.1 m
 195^u1217 Cl- [nn']
 196 Pb-214 [nat] 26.8 m
 197 Br- [n,g]
 198 Ag-109 [n,g]
 200 Ac-228 [nat] 6.1 h
 201 W- [n,g]
 203 Y-89 [n,g]
 203 Cu-65 [n,g]
 204^u1226 Hg-199 [n,g]
 205 Th-227 [nat] 18.5 d
 205 Tm-169 [n,g]
 205 U-235 [nat] long
 207^u1229 Sn- [n,g]
 207^u1229 Hf- [n,g]
 208 Br-79 [n'd] 4.8 s
 208 Er-167 [n'd] 23.0 s
 208 Eu- [n,g]
 209 Ac-228 [nat] 6.1 h
 210 Cm-243 [dec] 28.5 a
 210 Re- [n,g]
 211 Th-227 [nat] 18.5 d
 211 Ge-77 [dec] 11.3 h
 212 Mn-55 [n,g]
 213 Hf-178 [dec] 10.0 a
 214 Hf- [n,g]
 216 Au-197 [n,g]
 216 Ge-77 [dec] 11.3 h
 216^u1238 Bi-214 [nat] 19.8 m
 217 Ir- [n,g]
 217 Rh-103 [n,g]
 217 Hf-179 [n'd] 18.7 s
 217^u1239 Fe-56 [nn']
 220 Cm-243 [dec] 28.5 a
 220 La- [n,g]
 224^u1246 Ba- [n,g]
 225^u1247 Ac-228 [nat] 6.1 h
 226 Se-83 [dec] 22.6 m
 228 Cm-243 [dec] 30.0 a
 229 Sc-45 [n,g]
 230 Co-59 [n,g]
 231 Pd-111 [dec] 22.0 m
 235 Ag-109 [n,g]
 235 Cs- [n,g]
 236 Th-227 [nat] 18.6 d
 237 Tm-169 [n,g]
 237 Ag- [n,g]
 237 As- [n,g]
 239 Pb-212 [nat] 10.6 h
 239^u1261 C-12 [n,g]
 240 Se- [n,g]
 241 Ra-224 [nat] 3.7 d
 241^u1263 Hg-199 [n,g]
 242 Pb-214 [nat] 26.8 m

244[#]1266 Si-31 [dec] 2.6 h
 245 Eu-152 [dec] 12.7 a
 246 Br- [n,g]
 246 Pd- [n,g]
 247 Si- [n,g]
 247 Cd-111 [dec] 48.6 m
 248 Eu-154 [dec] 16.0 a
 248 Au-197 [n,g]
 248[#]1270 P-31 [nn']
 248[#]1270 S-32 [nn']
 248[#]1270 Si-28 [nn']
 248[#]1270 Al-30 [mis]
 249 Al-27 [n,g]
 250 Th-227 [nat] 18.5 d
 250 Si- [n,g]
 251 Zr- [n,g]
 251 Ga- [n,g]
 251[#]1273 Si- [n,g]
 252 Sn- [n,g]
 252 Tl-208 [nat] 3.1 m
 253 Cf-249 [dec] 351.0 a
 253 Ge-74 [n,g]
 253 N-14 [n,g]
 253[#]1275 Eu-154 [dec] 16.0 a
 253[#]1275 Na-22 [dec] 2.6 a
 255 Re- [n,g]
 255 Nb-93 [n,g]
 256 Th-227 [nat] 18.5 d
 256 Nd- [n,g]
 258 Pa-234 [nat] 1.2 m
 258 B- [n,g]
 258[#]1280 Na-23 [nn']
 259 Pb-214 [nat] 26.8 m
 259[#]1281 Bi-214 [nat] 19.7 m
 260 Co-59 [nn']
 261 Au-197 [n,g]
 264 Ge-77 [dec] 11.3 h
 265 Se-75 [dec] 120.0 d
 265 Ge-75 [dec] 1.4 h
 267 Cf-249 [dec] 351.0 a
 267[#]1289 Fe-59 [dec] 44.6 d
 268 Rh-103 [n,g]
 268[#]1290 Cl- [nn']
 269 Ra-223 [nat] 11.4 d
 270 Ac-228 [nat] 6.1 h
 271 Rn-219 [nat] 4.0 s
 271 Ta-181 [n,g]
 271[#]1293 Co-59 [nn']
 271[#]1293 Sn- [n,g]
 271[#]1293 In-116 [dec] 53.7 m
 271[#]1293 In-116 [dec] 13.4 s
 273 In- [n,g]
 273 Cd-117 [dec] 2.4 h
 275 Pb-214 [nat] 26.8 m
 276 Ba-133 [dec] 10.7 a
 276 Se-81 [dec] 18.6 m
 277 Tl-208 [nat] 3.1 m
 278 Cm-243 [dec] 30.0 a
 278 Co-59 [n,g]
 278 Cu-63 [n,g]

279 Au-197 [n'd] 7.2 s
 279 Hg-197 [dec] 23.8 h
 279 Hg-203 [dec] 46.9 d
 279 Dy-165 [dec] 139.0 m
 279[#]1301 Cs- [n,g]
 280[#]1302 Cd-117 [dec] 2.4 h
 283 Sb- [n,g]
 283 Ni- [n,g]
 284 Pa-231 [nat] 32.8 k
 285 Er- [n,g]
 286 Th-227 [nat] 18.5 d
 290 Se-81 [dec] 18.6 m
 290[#]1312 V-48 [mis]
 290[#]1312 Ti-48 [nn']
 291 Re- [n,g]
 291 I-127 [n,g]
 292[#]1314 Sc-48 [mis]
 295 Pb-214 [nat] 26.8 m
 295[#]1317 Bi-214 [nat] 19.8 m
 296 Cl- [n,g]
 296 Ag- [n,g]
 296 Sc-45 [n,g]
 297 Hf-178 [dec] 10.0 a
 298 Ta-181 [n,g]
 299 As- [n,g]
 300 Pb-212 [nat] 10.6 h
 300 Th-227 [nat] 18.6 d
 300 Pa-231 [nat] 32.8 k
 302 Ba-133 [dec] 10.7 a
 303 Pa-231 [nat] 32.8 k
 305 Cl- [n,g]
 305 Th-227 [nat] 18.5 d
 305[#]1327 Cl- [n,g]
 305[#]1327 Al-27 [nn']
 307 Hg-199 [n'd] 44.0 m
 308 Cs- [n,g]
 310[#]1332 Si- [n,g]
 310[#]1332 Co-60 [dec] 5.3 a
 310[#]1332 Ni-60 [nn']
 311[#]1333 Cu- [nn']
 312[#]1334 V-52 [dec] 3.7 m
 313 Th-227 [nat] 18.5 d
 314 Mn- [n,g]
 316 Br- [n,g]
 318 Re- [n,g]
 318 Ta-182 [dec] 15.8 m
 320 Cr-51 [dec] 27.8 d
 320 Ti-51 [dec] 5.8 m
 324 Ra-223 [nat] 11.4 d
 324[#]1346 Cu-64 [dec] 12.8 h
 325[#]1347 Ti-48 [nn']
 326 Ge-72 [n,g]
 326 Hf- [n,g]
 326 Hf-178 [dec] 10.0 a
 327 Ge-70 [n,g]
 327 F-19 [n,g]
 328 Bi-212 [nat] 60.5 m
 328[#]1350 F-19 [nn']
 329 Al-27 [n,g]
 329 La-140 [dec] 40.2 h

330 Th-227 [nat] 18.6 d
 330 Pa-231 [nat] 32.8 k
 332 Ac-228 [nat] 6.1 h
 332 Sn-125 [dec] 9.6 m
 333 Cf-249 [dec] 351.0 a
 333 Pt- [n,g]
 333 Sb- [n,g]
 334 Th-227 [nat] 18.5 d
 334 Sm- [n,g]
 336 In- [n,g]
 336 In-115 [n'd] 4.4 h
 336^u1358 S- [n,g]
 337 I-127 [n,g]
 338 Ra-223 [nat] 11.4 d
 338 Ac-228 [nat] 6.1 h
 339 Ni- [n,g]
 341 Ac-228 [nat] 6.1 h
 341^u1363 Hg-199 [n,g]
 342 Ti-48 [n,g]
 342^u1364 Cd- [n,g]
 344 Eu-152 [dec] 12.7 a
 344 Cu-63 [n,g]
 344^u1366 Pb- [nn']
 345 Cd-117 [dec] 2.4 h
 347^u1369 Ge-77 [dec] 11.3 h
 347^u1369 Mg-24 [nn']
 347^u1369 Si-28 [mis]
 347^u1369 Na-24 [dec] 15.0 h
 348^u1370 F-19 [nn']
 349 Tl- [n,g]
 351 Bi-211 [nat] 2.1 m
 352 Fe-56 [n,g]
 352 Ir- [n,g]
 352 Pb-214 [nat] 26.8 m
 355^u1377 Cs- [n,g]
 356 Pt- [n,g]
 356 Ba-133 [dec] 10.7 a
 356 Ta-182 [dec] 15.8 m
 356 Se-83 [dec] 22.6 m
 356^u1378 Bi-214 [nat] 19.8 m
 358 Ru-104 [mis]
 358 Tc-104 [dec] 18.2 m
 359^u1381 Ti-48 [n,g]
 361 Cu- [nn']
 361 Ta-181 [n,g]
 361 Dy-165 [dec] 139.0 m
 362 Ra-223 [nat] 11.4 d
 363^u1385 Bi-214 [nat] 19.9 m
 365 I-131 [dec] 8.1 d
 366 Ni-65 [dec] 152.0 m
 366^u1388 Ca- [n,g]
 367 Ge-77 [dec] 11.3 h
 368 Hg-199 [n,g]
 371 Ra-223 [nat] 11.4 d
 375 Eu- [n,g]
 378^u1400 Zr-92 [nn']
 380 Ag-109 [n,g]
 380^u1402 Bi-214 [nat] 19.8 m
 380^u1402 Sb- [n,g]
 381 Co-59 [nn']

383"1405 Zr- [n,g]
 384 Ba-133 [dec] 10.7 a
 385 Cu-65 [n,g]
 386"1408 Eu-152 [dec] 12.7 a
 386"1408 Bi-214 [nat] 19.8 m
 386"1408 Hg-199 [n,g]
 386"1408 Fe- [nn']
 387 Zn-71 [dec] 238.2 m
 388 Cf-249 [dec] 351.0 a
 388 Bi-214 [nat] 19.8 m
 390 Sr-87 [n'd] 2.8 h
 390 Mg- [n,g]
 391"1413 P-31 [n,g]
 393 In-113 [dec] 1.7 m
 394 Ga- [n,g]
 396 Cl- [n,g]
 399"1421 Ba-139 [dec] 82.9 m
 401 Rn-219 [nat] 4.0 s
 403 Ta-181 [n,g]
 404"1426 Ba- [nn']
 404"1426 La-138 [mis]
 405 Pb-211 [nat] 36.1 m
 406 Bi-214 [nat] 19.9 m
 409 Ac-228 [nat] 6.1 h
 412 Fe-54 [n,g]
 412 Au-198 [dec] 64.7 h
 412"1434 Cr-52 [nn']
 412"1434 V-52 [dec] 3.7 m
 413 Dy- [n,g]
 413"1435 Ba- [n,g]
 414 Ag-109 [nn']
 414"1436 La-138 [dec] long
 415"1437 Te- [n,g]
 416 Ge-77 [dec] 11.3 h
 416"1438 Ti-48 [nn']
 417 In-116 [dec] 53.7 m
 418 Ba- [nn']
 418 Ir- [n,g]
 419 V-51 [n,g]
 420"1442 Cu- [nn']
 421 B(- [nat] 0.0 h
 423 La- [n,g]
 425"1447 Ni-58 [nn']
 426 Hf-178 [dec] 10.0 a
 427 Pb-211 [nat] 36.1 m
 427 Bi-214 [nat] 19.9 m
 430"1452 Ni- [nn']
 434 Ag-108 [dec] 2.4 m
 437 Cl- [n,g]
 437 V-51 [n,g]
 437"1459 Ac-228 [nat] 6.1 h
 438 Na-23 [nn']
 439 Po-215 [nat] <0.1 s
 439 Sm- [n,g]
 439 Na-23 [nn']
 439 Zn-69 [dec] 14.1 h
 439"1461 K-40 [nat] long
 440 Ni-58 [nn']
 444"1466 As- [n,g]
 445"1467 Hg-199 [n,g]

446 Zn- [n,g]
 448 Co-59 [n,g]
 448 Zr-92 [nn']
 450 Ce-63 [n,g]
 450[#]1472 Ge-73 [n,g]
 451 Th-233 [dec] 22.1 m
 453 Bi-212 [nat] 60.6 m
 454 Nd- [n,g]
 455 Bi-214 [nat] 19.9 m
 458[#]1480 O-16 [nn']
 460 B-10 [n,a]
 460[#]1482 Ni-65 [dec] 152.0 m
 461[#]1483 Co-59 [nn']
 462 Pb-214 [nat] 26.8 m
 463 Ac-228 [nat] 6.1 h
 465 Te- [n,g]
 465 Ni- [n,g]
 465 In-116 [dec] 13.4 s
 465[#]1487 Cu- [nn']
 465[#]1487 Te- [n,g]
 466 Cu-65 [n,g]
 469[#]1491 Pt- [n,g]
 470 Bi-214 [nat] 19.8 m
 472 Na-23 [n,g]
 472 As- [n,g]
 473 N-14 [n,g]
 474[#]1496 Ac-228 [nat] 6.1 h
 475 Ru- [n,g]
 476 Rb- [n,g]
 476[#]1498 Ti-48 [n,g]
 478 Cl- [n,g]
 478 Li-7 [nn']
 478 Os- [n,g]
 478 B-10 [n,a]
 478 Be-7 [dec] 53.3 d
 479 Li- [nn']
 480 Pb-214 [nat] 26.8 m
 480 W-187 [dec] 23.9 h
 487 Pb-214 [nat] 26.8 m
 487 La-140 [dec] 40.2 h
 487[#]1509 Bi-214 [nat] 19.8 m
 493 Ge-73 [n,g]
 493 Ge-74 [nn']
 495 Hf-178 [dec] 10.0 a
 497 Co-59 [n,g]
 497 B- [n,g]
 498 Dy- [n,g]
 500 Os-190 [n'd] 9.9 m
 502 B- [n,g]
 503[#]1525 K-42 [dec] 12.4 h
 506[#]1528 Cr-50 [nn']
 507[#]1529 Mn-55 [nn']
 509[#]1531 Cr- [nn']
 510 Ac-228 [nat] 6.1 h
 510 Rn-222 [nat] 3.8 d
 510 Ni-58 [nn']
 511 Mg-24 [nn']
 511 Al-27 [nn']
 511 Si-28 [nn']
 511 K- [nn']

511 Ca- [nn']
 511 Fe- [nn']
 511 Cl- [nn']
 511 O-16 [nn']
 511 Ga-68 [dec] 68.3 m
 511 As-74 [dec] 17.8 d
 511 Zn-65 [dec] 244.0 d
 511 Na-22 [dec] 2.6 a
 511 Cu-64 [dec] 12.8 h
 511 Tl-208 [nat] 3.1 m
 511'1022 Al-27 [nn']
 512 Se-83 [dec] 22.6 m
 517"1539 Bi-214 [nat] 19.9 m
 518 Cl- [n,g]
 520 Ca- [n,g]
 520'1031 Rb- [n,g]
 521 Se- [n,g]
 521"1543 Bi-214 [nat] 19.9 m
 527'1038 Fe- [nn']
 528 Cd-115 [dec] 53.5 h
 528'1039 Cu-66 [dec] 5.1 m
 529'1040 Si-28 [nn']
 529'1040 Sc-48 [mis]
 534 Pb-214 [nat] 26.8 m
 535 Hf-178 [dec] 10.0 a
 537'1048 Pd- [n,g]
 538 Dy- [n,g]
 540 Ru- [n,g]
 541 Cl- [n,g]
 541'1052 Bi-214 [nat] 19.9 m
 543 Bi-214 [nat] 19.9 m
 543 Pt-199 [dec] 31.0 m
 546 Dy-165 [dec] 139.0 m
 548"1570 Hg-199 [n,g]
 550 Rn-220 [nat] 55.6 s
 551 W- [n,g]
 552'1063 Pb- [nn']
 553"1575 Ge-77 [dec] 11.3 h
 554"1576 Cd-117 [dec] 2.4 h
 556 Co-59 [n,g]
 556 Rh-104 [dec] 42.0 s
 557 Rb- [n,g]
 558 Ge-77 [dec] 11.3 h
 558 Sr- [n,g]
 559 Li- [n,g]
 559 As-76 [dec] 26.4 h
 559 Cd-113 [n,g]
 559'1070 Bi-214 [nat] 19.9 m
 560 Zr-92 [nn']
 560 Y-89 [n,a]
 560 Rb-86 [dec] 1.0 m
 560'1071 P-31 [n,g]
 561 Zr- [n,g]
 561"1583 Bi-214 [nat] 19.8 m
 562 Ac-228 [nat] 6.1 h
 564 Sb-122 [dec] 64.3 h
 564"1586 Ti-48 [n,g]
 566 Se-81 [dec] 18.6 m
 566'1077 Ga-68 [dec] 68.3 m
 566'1077 Zn- [n,g]

566[#]1588 Ac-228 [nat] 6.1 h
 568 Pb-207 [n'd] 0.8 s
 569 Os- [n,g]
 570 Pa-234 [nat] 1.2 m
 570[#]1592 Ir- [n,g]
 573[#]1595 Bi-214 [nat] 19.9 m
 574 Hf-178 [dec] 10.0 a
 574[#]1085 Ge-77 [dec] 11.3 h
 575 Y-89 [n,g]
 575[#]1086 Eu-152 [dec] 12.7 a
 575[#]1597 Ge-77 [dec] 54.0 s
 575[#]1597 La-140 [dec] 40.2 h
 576 Cl- [n,g]
 576[#]1598 S- [n,g]
 577[#]1088 O-16 [n,g]
 577[#]1599 Bi-214 [nat] 19.9 m
 579 Hg-199 [n,g]
 579[#]1601 Cl- [n,g]
 580 Pb-214 [nat] 26.8 m
 580 Cu-63 [n,g]
 580[#]1091 Mo- [n,g]
 583 Pb- [nn']
 583 Tl-208 [nat] 3.1 m
 583[#]1605 Hg-199 [n,g]
 585 Mg- [n,g]
 586[#]1097 Fe-59 [dec] 44.6 d
 586[#]1097 In-116 [dec] 53.7 m
 587[#]1098 Ba- [nn']
 587[#]1609 V-51 [nn']
 588[#]1099 Co-59 [nn']
 590 Cl- [n,g]
 590[#]1101 Ge-73 [n,g]
 591 Mo-101 [dec] 14.6 m
 591[#]1613 Fe-56 [n,g]
 592 Eu-154 [dec] 16.0 a
 592[#]1103 Ge-74 [nn']
 593[#]1104 Bi-214 [nat] 19.9 m
 595 Cl- [n,g]
 595[#]1106 Ge-73 [n,g]
 595[#]1617 K- [n,g]
 596 Ge-73 [n,g]
 596 F-19 [n,g]
 596[#]1107 As-74 [mis]
 597 N-14 [n,g]
 598[#]1109 Pb-211 [nat] 36.1 m
 598[#]1620 Fe- [n,g]
 599[#]1621 Bi-212 [nat] 60.6 m
 601[#]1112 Eu-152 [dec] 12.7 a
 601[#]1623 Al-27 [n,g]
 603 Te- [n,g]
 604[#]1115 Zn-65 [dec] 244.0 d
 605[#]1116 Ni-65 [dec] 152.0 m
 605[#]1627 Na-23 [mis]
 608 Ge-73 [n,g]
 608 V-51 [nn']
 608 Ti-51 [dec] 5.8 m
 608[#]1630 Ac-228 [nat] 6.1 h
 608[#]1630 N-14 [mis]
 609 Ge-74 [nn']
 609 Bi-214 [nat] 19.9 m

609 Cu-63 [n,g]
 609'1120 Bi-214 [nat] 19.8 m
 609'1120 Zr-92 [nn']
 609'1120 Sc-46 [n'd] 83.8 d
 610 Cl- [nn']
 610"1632 Hg-199 [n,g]
 611'1122 Cu- [nn']
 612"1634 Ge-73 [n,g]
 612"1634 Na-22 [n,g]
 613"1635 Na-23 [nn']
 614 I-127 [n,g]
 614 Se- [n,g]
 616 Pd- [n,g]
 616"1638 Ac-228 [nat] 6.1 h
 618 Nd- [n,g]
 618 W-187 [dec] 23.9 h
 618'1129 Mg- [n,g]
 618"1640 Ca- [nn']
 618"1640 Na-23 [nn']
 619 Na-23 [nn']
 619 Ag-108 [dec] 2.4 m
 621'1132 Ge-73 [n,g]
 621'1132 Cl- [n,g]
 621"1643 Cl-38 [dec] 37.3 m
 623'1134 Bi-214 [nat] 19.9 m
 627 Ba- [n,g]
 628 Sc-45 [n,g]
 631 Ru- [n,g]
 632 Ge-77 [dec] 11.3 h
 633 Ag-108 [dec] 2.4 m
 634 Os- [n,g]
 635 Dy-165 [dec] 139.0 m
 636 P-31 [n,g]
 638 I-131 [dec] 8.1 d
 638"1660 Si-28 [nn']
 639'1150 K- [nn']
 639"1661 Bi-214 [nat] 19.8 m
 644'1155 Bi-214 [nat] 19.8 m
 645 Rh- [n,g]
 646 V-51 [n,g]
 646 Os-185 [dec] 94.0 d
 646"1668 Hg-199 [n,g]
 648 Cu-63 [n,g]
 648'1159 K- [n,g]
 649'1160 Ca- [nn']
 650 Ni-58 [nn']
 650"1672 Cu-63 [n,g]
 651 Cd- [n,g]
 651 Ga- [n,g]
 654'1165 Cl- [n,g]
 654"1676 Cl- [n,g]
 656'1167 Mn-55 [nn']
 657 As-76 [dec] 26.4 h
 657"1679 N-14 [n,g]
 658 Ag-110 [dec] 24.4 s
 660 Cl- [nn']
 660'1171 Sn- [n,g]
 661 Hg-199 [n,g]
 662 Cs-137 [dec] 30.0 a
 662 Ba-137 [n'd] 2.6 m

662 Ce- [n,g]
 662^u1173 Co-60 [dec] 5.3 a
 662^u1173 Ni-60 [nn']
 662^u1684 Bi-214 [nat] 19.9 m
 663 Cu-63 [n,g]
 665 Bi-214 [nat] 19.9 m
 670 Cu- [nn']
 670 Th-233 [dec] 22.1 m
 670^u1692 Sc-45 [n,g]
 671^u1693 Hg-199 [n,g]
 678^u1700 Pb- [nn']
 680^u1191 Co-59 [nn']
 682^u1193 Ge-77 [dec] 11.3 h
 683 O-16 [n,a]
 683^u1705 Mn-55 [n,g]
 686 W-187 [dec] 23.9 h
 687 Ru- [n,g]
 688^u1199 Br- [n,g]
 689 Eu-152 [dec] 12.7 a
 691 Ge-72 [nn']
 692 Fe-56 [n,g]
 692 Ga- [n,g]
 692^u1203 Hg-199 [n,g]
 693 Sb-122 [dec] 64.3 h
 694^u1205 Ge-73 [n,g]
 695^u1206 Hf- [n,g]
 697 Nd- [n,g]
 697^u1208 Bi-214 [nat] 19.9 m
 697^u1719 Hg-199 [n,g]
 697^u1719 Al- [nn']
 701^u1723 Ba- [nn']
 702 Ge-73 [n,g]
 702^u1724 Nb-93 [n,g]
 702^u1724 Ca- [n,g]
 703 Nb-94 [dec] 20.3 k
 703 Bi-214 [nat] 19.8 m
 703^u1725 Fe-56 [n,g]
 704 Pb-211 [nat] 36.1 m
 706^u1217 Cl- [nn']
 708^u1730 Bi-214 [nat] 19.9 m
 714 Ge-77 [dec] 11.3 h
 715^u1226 Hg-199 [n,g]
 717 Pd- [n,g]
 717 Dy-165 [dec] 139.0 m
 718^u1229 Sn- [n,g]
 718^u1229 Hf- [n,g]
 720 Bi-214 [nat] 19.9 m
 720 Mo- [n,g]
 720 Se-83 [dec] 22.6 m
 723 Ag-108 [dec] 127.0 a
 723 Eu-154 [dec] 16.0 a
 723^u1745 Co-59 [nn']
 723^u1745 Cu-65 [n,g]
 725^u1747 Mn-55 [n,g]
 727 Ac-228 [nat] 6.1 h
 727 Ca- [n,g]
 727 Bi-212 [nat] 60.5 m
 727^u1238 Bi-214 [nat] 19.8 m
 727^u1749 F-19 [n,g]
 728^u1239 Fe-56 [nn']

731[#]1753 O-16 [nn']
 731[#]1753 In- [n,g]
 735[#]1246 Ba- [n,g]
 736[#]1247 Ac-228 [nat] 6.1 h
 736[#]1758 Hg-199 [n,g]
 737 Tl- [n,g]
 738[#]1760 O-16 [nn']
 739[#]1761 Ti-48 [n,g]
 740 Si-28 [nn']
 740 O-16 [n,a]
 740[#]1762 Cl- [nn']
 740[#]1762 Ti- [n,g]
 743[#]1765 Bi-214 [nat] 19.9 m
 744 Mn-52 [mis]
 749 Cr-50 [n,g]
 750[#]1261 C-12 [n,g]
 752[#]1263 Hg-199 [n,g]
 753 Bi-214 [nat] 19.9 m
 755 Ac-228 [nat] 6.1 h
 755[#]1266 Si-31 [dec] 2.6 h
 756[#]1778 V-51 [n,g]
 757 Eu-154 [dec] 16.0 a
 757[#]1779 P-31 [n'd] 2.3 m
 757[#]1779 Si-28 [nn']
 757[#]1779 Al-28 [dec] 2.3 m
 758[#]1780 Cl- [nn']
 759[#]1270 P-31 [nn']
 759[#]1270 S-32 [nn']
 759[#]1270 Si-28 [nn']
 759[#]1270 Al-30 [mis]
 762[#]1273 Si- [n,g]
 762[#]1784 Cr-53 [n,g]
 763[#]1785 Cl- [n,g]
 764[#]1275 Eu-154 [dec] 16.0 a
 764[#]1275 Na-22 [dec] 2.6 a
 764[#]1786 Na-22 [mis]
 766 Pb-211 [nat] 36.1 m
 766 Pa-234 [nat] 1.2 m
 768 Bi-214 [nat] 19.8 m
 768 Ca- [mis]
 769[#]1280 Na-23 [nn']
 770[#]1281 Bi-214 [nat] 19.7 m
 770[#]1792 Ti-48 [n,g]
 771 Ca- [nn']
 771 K- [n,g]
 772 Ac-228 [nat] 6.1 h
 773 W- [n,g]
 778 Mo- [n,g]
 778[#]1289 Fe-59 [dec] 44.6 d
 778[#]1800 Mg-24 [nn']
 779 Eu-152 [dec] 12.7 a
 779[#]1290 Cl- [nn']
 780 K- [nn']
 781 Na-23 [n,g]
 782 Ac-228 [nat] 6.1 h
 782[#]1293 Co-59 [nn']
 782[#]1293 Sn- [n,g]
 782[#]1293 In-116 [dec] 53.7 m
 782[#]1293 In-116 [dec] 13.4 s
 785 Bi-212 [nat] 60.5 m

786 Po-214 [nat] 26.8 m
 786 Bi-214 [nat] 19.9 m
 786 Pa-234 [nat] 1.2 m
 787^u1809 Al-27 [mis]
 788 La-138 [dec] long
 788^u1810 Fe-56 [nn']
 789 Cl- [n,g]
 789^u1811 Mn-56 [dec] 2.6 h
 790 Rh-103 [n,g]
 790^u1301 Cs- [n,g]
 791^u1302 Cd-117 [dec] 2.4 h
 791^u1813 V-51 [nn']
 795 Ac-228 [nat] 6.1 h
 800 Po-214 [nat] <0.1 s
 800^u1822 Pb- [nn']
 801^u1312 V-48 [mis]
 801^u1312 Ti-48 [nn']
 803 Pb- [nn']
 803^u1314 Sc-48 [mis]
 806 Cd- [n,g]
 806 Bi-214 [nat] 19.7 m
 806^u1317 Bi-214 [nat] 19.8 m
 807 Zn-68 [nn']
 808^u1830 Cl- [n,g]
 808^u1830 Co-59 [n,g]
 808^u1830 Zr-92 [nn']
 810 Fe-57 [n,g]
 810 La-138 [mis]
 811 Co-58 [dec] 71.5 d
 814^u1836 Y-88 [dec] 106.6 d
 814^u1836 Sr- [n,g]
 816 Er- [n,g]
 816 La-140 [dec] 40.2 h
 816^u1327 Cl- [n,g]
 816^u1327 Al-27 [nn']
 816^u1838 Bi-214 [nat] 19.9 m
 819 In- [n,g]
 819 Ba- [n,g]
 821 Bi-214 [nat] 19.8 m
 821^u1332 Si- [n,g]
 821^u1332 Co-60 [dec] 5.3 a
 821^u1332 Ni-60 [nn']
 822^u1333 Cu- [nn']
 823 V-51 [n,g]
 823^u1334 V-52 [dec] 3.7 m
 825^u1847 Bi-214 [nat] 19.8 m
 826 Bi-214 [nat] 19.9 m
 828 Se-81 [dec] 18.6 m
 831 Cl- [n,g]
 832 Pb-211 [nat] 36.1 m
 835 Cr-53 [n,g]
 835 Mn-54 [mis]
 835^u1346 Cu-64 [dec] 12.8 h
 836 Ac-228 [nat] 6.1 h
 836^u1347 Ti-48 [nn']
 839 Pb-214 [nat] 26.8 m
 839^u1350 F-19 [nn']
 840 Ac-228 [nat] 6.1 h
 841 S- [n,g]
 842 Eu-152 [dec] 12.7 a

842 Mg-27 [mis]
 843 Al-27 [nn']
 844 Mg-27 [dec] 9.5 m
 847 Co-56 [mis]
 847 Fe-56 [nn']
 847 Mn-56 [dec] 2.6 h
 847'1358 S- [n,g]
 849 Mo- [n,g]
 850 Sr- [n,g]
 851"1873 Bi-214 [nat] 19.9 m
 852'1363 Hg-199 [n,g]
 853 Be-9 [n,g]
 853'1364 Cd- [n,g]
 854"1876 Cu- [nn']
 855'1366 Pb- [nn']
 858 Mn-55 [nn']
 858'1369 Ge-77 [dec] 11.3 h
 858'1369 Mg-24 [nn']
 858'1369 Si-28 [mis]
 858'1369 Na-24 [dec] 15.0 h
 859'1370 F-19 [nn']
 860 Tl-208 [nat] 3.1 m
 861 Ba- [nn']
 861"1883 Mn-55 [nn']
 861"1883 Zn- [n,g]
 866'1377 Cs- [n,g]
 866"1888 N-14 [n,g]
 866"1888 I-127 [n,g]
 867 Eu-152 [dec] 12.7 a
 867'1378 Bi-214 [nat] 19.8 m
 868 Ge-73 [n,g]
 868 La-140 [dec] 40.2 h
 868"1890 Bi-214 [nat] 19.9 m
 868"1890 S- [n,g]
 868"1890 F-19 [n,g]
 868"1890 P-31 [n,g]
 869 Li- [n,g]
 869"1891 Li- [n,g]
 870'1381 Ti-48 [n,g]
 871 Nb-94 [dec] 20.3 k
 871 Na-23 [n,g]
 873 Eu-154 [dec] 16.0 a
 873 Tl- [n,g]
 873 Rb- [n,g]
 874'1385 Bi-214 [nat] 19.9 m
 874"1896 Bi-214 [nat] 19.9 m
 875"1897 Cl- [n,g]
 876"1898 Cr-50 [n,g]
 877'1388 Ca- [n,g]
 878 Ni-58 [n,g]
 880 Mg-24 [nn']
 886 Hg-199 [n,g]
 887 Se- [n,g]
 889 Sc-46 [n'd] 83.8 d
 889'1400 Zr-92 [nn']
 890 Ca- [nn']
 890 Mo-101 [dec] 14.6 m
 891 W- [n,g]
 891'1402 Bi-214 [nat] 19.8 m
 891'1402 Sb- [n,g]

893 Bi-212 [nat] 60.6 m
 893^u1915 Mn-55 [n,g]
 894^u1405 Zr- [n,g]
 897^u1408 Eu-152 [dec] 12.7 a
 897^u1408 Bi-214 [nat] 19.8 m
 897^u1408 Hg-199 [n,g]
 897^u1408 Fe- [nn']
 897^u1919 Te- [n,g]
 898 Y-88 [dec] 106.6 d
 898 Pb- [nn']
 898 Sr- [n,g]
 902^u1413 P-31 [n,g]
 904 Pb-214 [nat] 26.8 m
 907^u1929 K- [n,g]
 909 Y-89 [n'd] 16.1 s
 910^u1421 Ba-139 [dec] 82.9 m
 911 Ac-228 [nat] 6.1 h
 911 Tl- [n,g]
 915^u1426 Ba- [nn']
 915^u1426 La-138 [mis]
 919^u1941 Ge-73 [n,g]
 921 Sb- [n,g]
 921^u1943 Ca-40 [n,g]
 923^u1434 Cr-52 [nn']
 923^u1434 V-52 [dec] 3.7 m
 924^u1435 Ba- [n,g]
 925 La-140 [dec] 40.2 h
 925^u1436 La-138 [dec] long
 926^u1437 Te- [n,g]
 926^u1948 Ge-77 [dec] 54.0 s
 927^u1438 Ti-48 [nn']
 928 V-51 [nn']
 928 Ti-51 [dec] 5.8 m
 929^u1951 Cl- [n,g]
 930^u1952 Ni-58 [n,g]
 931^u1442 Cu- [nn']
 933^u1955 O-16 [nn']
 934 Bi-214 [nat] 19.8 m
 934 Zr-91 [n,g]
 934 Zr-92 [nn']
 935 Cr-50 [nn']
 935 Mn-52 [mis]
 935^u1957 Cl- [n,g]
 936^u1447 Ni-58 [nn']
 938^u1960 O-16 [nn']
 941^u1452 Ni- [nn']
 948^u1459 Ac-228 [nat] 6.1 h
 950^u1461 K-40 [nat] long
 955^u1466 As- [n,g]
 956^u1467 Hg-199 [n,g]
 957^u1979 Pt- [n,g]
 958^u1980 Nb-93 [n,g]
 961 Ge-73 [n,g]
 961^u1472 Ge-73 [n,g]
 962^u1984 Cl- [n,g]
 962^u1984 Al-27 [nn']
 964 Bi-214 [nat] 19.9 m
 964 Eu-152 [dec] 12.7 a
 965 Ac-228 [nat] 6.1 h
 966^u1988 Mn-55 [n,g]

967 Cu-63 [nn']
 969 Ac-228 [nat] 6.1 h
 969'1480 O-16 [nn']
 971'1482 Ni-65 [dec] 152.0 m
 972'1483 Co-59 [nn']
 975"1997 Cd-117 [dec] 2.4 h
 976'1487 Cu- [nn']
 976'1487 Te- [n,g]
 978"2000 Ge-77 [dec] 11.3 h
 980 O-16 [nn']
 980'1491 Pt- [n,g]
 980"2002 Hg-199 [n,g]
 981 Li- [n,g]
 982"2004 Cl- [n,g]
 982"2004 Re- [n,g]
 983 Al-27 [n,g]
 983 Ti-48 [n,g]
 985'1496 Ac-228 [nat] 6.1 h
 987'1498 Ti-48 [n,g]
 990 Na-23 [nn']
 991"2013 Ge- [n,g]
 992 Zn-64 [nn']
 995 Ba- [nn']
 996 Eu-154 [dec] 16.0 a
 998 Ti-48 [nn']
 998'1509 Bi-214 [nat] 19.8 m
 998"2020 Fe- [mis]
 999"2021 Cl-35 [n,g]
 1000 Ge-73 [n,g]
 1001 Pa-234 [nat] 1.2 m
 1005 Eu-154 [dec] 16.0 a
 1005"2027 Na-23 [n,g]
 1008 Zn- [n,g]
 1010"2032 Li- [n,g]
 1011 Ni-58 [nn']
 1012 Mo-101 [dec] 14.6 m
 1012"2034 Cl- [n,g]
 1014 Mg-27 [dec] 9.5 m
 1014 Al-27 [nn']
 1014'1525 K-42 [dec] 12.4 h
 1015 Mg-27 [dec] 9.5 m
 1017'1528 Cr-50 [nn']
 1017"2039 Te- [n,g]
 1018'1529 Mn-55 [nn']
 1020 Cl- [n,g]
 1020 Mo-101 [dec] 14.6 m
 1020'1531 Cr- [nn']
 1022 Al-27 [nn']
 1022"2044 Mn-55 [n,g]
 1027"2049 Ag- [n,g]
 1028'1539 Bi-214 [nat] 19.9 m
 1031 Rb- [n,g]
 1032'1543 Bi-214 [nat] 19.9 m
 1038 Fe- [nn']
 1038"2060 Zr-92 [nn']
 1039 Cu-66 [dec] 5.1 m
 1040 Si-28 [nn']
 1040 Sc-46 [mis]
 1043"2065 Hf- [n,g]
 1046"2068 Pt- [n,g]

1048 Pd- [n,g]
 1051^u2073 K- [n,g]
 1051^u2073 B- [n,g]
 1052 Bi-214 [nat] 19.9 m
 1052^u2074 Cl- [n,g]
 1052^u2074 Cs- [n,g]
 1052^u2074 Sb- [n,g]
 1059^u1570 Hg-199 [n,g]
 1063 Pb- [nn']
 1064^u1575 Ge-77 [dec] 11.3 h
 1065^u1576 Cd-117 [dec] 2.4 h
 1067^u2089 Mo-101 [dec] 14.6 m
 1070 Bi-214 [nat] 19.9 m
 1070^u2092 Cl- [n,g]
 1071 P-31 [n,g]
 1071^u2093 Si- [n,g]
 1072^u1583 Bi-214 [nat] 19.8 m
 1075^u1586 Ti-48 [n,g]
 1077 Ga-68 [dec] 68.3 m
 1077 Zn- [n,g]
 1077^u1588 Ac-228 [nat] 6.1 h
 1081^u1592 Ir- [n,g]
 1084^u1595 Bi-214 [nat] 19.9 m
 1084^u2106 Cl- [n,g]
 1085 Ge-77 [dec] 11.3 h
 1085^u2107 Gd- [n,g]
 1086 Eu-152 [dec] 12.7 a
 1086^u1597 Ge-77 [dec] 54.0 s
 1086^u1597 La-140 [dec] 40.2 h
 1087^u1598 S- [n,g]
 1088 O-16 [n,g]
 1088^u1599 Bi-214 [nat] 19.9 m
 1088^u2110 Bi-214 [nat] 19.9 m
 1090^u1601 Cl- [n,g]
 1091 Mo- [n,g]
 1091^u2113 Sn- [n,g]
 1091^u2113 Fe-56 [nn']
 1091^u2113 Mn-56 [dec] 2.6 h
 1092^u2114 P-31 [n,g]
 1094^u1605 Hg-199 [n,g]
 1095^u2117 Li- [n,g]
 1097 Fe-59 [dec] 44.6 d
 1097 In-116 [dec] 53.7 m
 1097^u2119 Bi-214 [nat] 19.8 m
 1098 Ba- [nn']
 1098^u1609 V-51 [nn']
 1099 Co-59 [nn']
 1101 Ge-73 [n,g]
 1102^u1613 Fe-56 [n,g]
 1103 Ge-74 [nn']
 1104 Bi-214 [nat] 19.9 m
 1106 Ge-73 [n,g]
 1106^u1617 K- [n,g]
 1107 As-74 [mis]
 1107^u2129 Cl- [n,g]
 1108^u2130 Rb- [n,g]
 1108^u2130 Ca- [n,g]
 1109 Pb-211 [nat] 36.1 m
 1109^u1620 Fe- [n,g]
 1110^u1621 Bi-212 [nat] 60.6 m

1112 Eu-152 [dec] 12.7 a
 1112'1623 Al-27 [n,g]
 1115 Zn-65 [dec] 244.0 d
 1116 Ni-65 [dec] 152.0 m
 1116'1627 Na-23 [mis]
 1119'1630 Ac-228 [nat] 6.1 h
 1119'1630 N-14 [mis]
 1120 Bi-214 [nat] 19.8 m
 1120 Zr-92 [nn']
 1120 Sc-46 [n'd] 83.8 d
 1121'1632 Hg-199 [n,g]
 1122 Cu- [nn']
 1123'1634 Ge-73 [n,g]
 1123'1634 Na-22 [n,g]
 1124'1635 Na-23 [nn']
 1127'1638 Ac-228 [nat] 6.1 h
 1128"2150 Cl- [nn']
 1128"2150 Rb- [n,g]
 1129 Mg- [n,g]
 1129'1640 Ca- [nn']
 1129'1640 Na-23 [nn']
 1132 Ge-73 [n,g]
 1132 Cl- [n,g]
 1132'1643 Cl-38 [dec] 37.3 m
 1132"2154 P-31 [n,g]
 1134 Bi-214 [nat] 19.9 m
 1135"2157 Cl- [n,g]
 1138"2160 K- [nn']
 1146"2168 Cl-38 [dec] 37.3 m
 1149'1660 Si-28 [nn']
 1150 K- [nn']
 1150'1661 Bi-214 [nat] 19.8 m
 1153"2175 Mn-55 [n,g]
 1155 Bi-214 [nat] 19.8 m
 1155"2177 Cl- [n,g]
 1155"2177 Rb- [n,g]
 1157'1668 Hg-199 [n,g]
 1157"2179 Sn- [n,g]
 1158"2180 O-16 [n,g]
 1159 K- [n,g]
 1160 Ca- [nn']
 1161'1672 Cu-63 [n,g]
 1162"2184 Li- [n,g]
 1164"2186 Ba- [n,g]
 1165 Cl- [n,g]
 1165'1676 Cl- [n,g]
 1166"2188 Hg-199 [n,g]
 1167 Mn-55 [nn']
 1168'1679 N-14 [n,g]
 1169"2191 Zr- [n,g]
 1171 Sn- [n,g]
 1173 Co-60 [dec] 5.3 a
 1173 Ni-60 [nn']
 1173'1684 Bi-214 [nat] 19.9 m
 1175"2197 Pd- [n,g]
 1181'1692 Sc-45 [n,g]
 1182'1693 Hg-199 [n,g]
 1182"2204 Bi-214 [nat] 19.8 m
 1185"2207 Ba- [nn']
 1186"2208 O-16 [nn']

1189#1700 Pb- [nn']
 1190#2212 Al-27 [nn']
 1191 Co-59 [nn']
 1192#2214 Hg-199 [n,g]
 1193 Ge-77 [dec] 11.3 h
 1194#1705 Mn-55 [n,g]
 1199 Br- [n,g]
 1201#2223 H-1 [n,g]
 1203 Hg-199 [n,g]
 1203#2225 S- [nn']
 1205 Ge-73 [n,g]
 1206 Hf- [n,g]
 1208 Bi-214 [nat] 19.9 m
 1208#1719 Hg-199 [n,g]
 1208#1719 Al- [nn']
 1208#2230 Si- [mis]
 1208#2230 Na-23 [nn']
 1208#2230 P-31 [nn']
 1208#2230 Si- [mis]
 1212#1723 Ba- [nn']
 1212#2234 Al-27 [nn']
 1213#1724 Nb-93 [n,g]
 1213#1724 Ca- [n,g]
 1214#1725 Fe-56 [n,g]
 1217 Cl- [nn']
 1217#2239 Cr-53 [n,g]
 1218#2240 S-32 [nn']
 1219#1730 Bi-214 [nat] 19.9 m
 1226 Hg-199 [n,g]
 1228#2250 Ca- [n,g]
 1229 Sn- [n,g]
 1229 Hf- [n,g]
 1234#1745 Co-59 [nn']
 1234#1745 Cu-65 [n,g]
 1236#1747 Mn-55 [n,g]
 1238 Bi-214 [nat] 19.8 m
 1238#1749 F-19 [n,g]
 1239 Fe-56 [nn']
 1239#2261 Os- [n,g]
 1242#1753 O-16 [nn']
 1242#1753 In- [n,g]
 1246 Ba- [n,g]
 1247 Ac-228 [nat] 6.1 h
 1247#1758 Hg-199 [n,g]
 1247#2269 Cl- [n,g]
 1249#1760 O-16 [nn']
 1250#1761 Ti-48 [n,g]
 1250#2272 Hg-199 [n,g]
 1251#1762 Cl- [nn']
 1251#1762 Ti- [n,g]
 1252#2274 Fe-56 [nn']
 1253#2275 Mn-55 [nn']
 1254#1765 Bi-214 [nat] 19.9 m
 1254#2276 Al-27 [nn']
 1255#2277 Sr- [n,g]
 1261 C-12 [n,g]
 1263 Hg-199 [n,g]
 1266 Si-31 [dec] 2.6 h
 1267#1778 V-51 [n,g]
 1267#2289 Cl- [n,g]

1268'1779 P-31 [n'd] 2.3 m
 1268'1779 Si-28 [nn']
 1268'1779 Al-28 [dec] 2.3 m
 1269'1780 Cl- [nn']
 1269"2291 K- [n,g]
 1270 P-31 [nn']
 1270 S-32 [nn']
 1270 Si-28 [nn']
 1270 Al-30 [mis]
 1271"2293 Bi-214 [nat] 19.8 m
 1272"2294 Mn-55 [n,g]
 1273 Si- [n,g]
 1273'1784 Cr-53 [n,g]
 1274'1785 Cl- [n,g]
 1275 Eu-154 [dec] 16.0 a
 1275 Na-22 [dec] 2.6 a
 1275'1786 Na-22 [mis]
 1276"2298 Hg-199 [n,g]
 1276"2298 Ru- [n,g]
 1280 Na-23 [nn']
 1281 Bi-214 [nat] 19.7 m
 1281'1792 Ti-48 [n,g]
 1289 Fe-59 [dec] 44.6 d
 1289'1800 Mg-24 [nn']
 1289"2311 Pt- [n,g]
 1290 Cl- [nn']
 1290"2312 Cl- [n,g]
 1290"2312 O-16 [mis]
 1292"2314 Gd- [n,g]
 1293 Co-59 [nn']
 1293 Sn- [n,g]
 1293 In-116 [dec] 53.7 m
 1293 In-116 [dec] 13.4 s
 1295"2317 N-14 [nn']
 1298'1809 Al-27 [mis]
 1299'1810 Fe-56 [nn']
 1299"2321 Cr-52 [n,g]
 1300'1811 Mn-56 [dec] 2.6 h
 1301 Cs- [n,g]
 1302 Cd-117 [dec] 2.4 h
 1302'1813 V-51 [nn']
 1309"2331 Mn-55 [n,g]
 1311'1822 Pb- [nn']
 1312 V-48 [mis]
 1312 Ti-48 [nn']
 1314 Sc-48 [mis]
 1315"2337 In- [n,g]
 1317 Bi-214 [nat] 19.8 m
 1319'1830 Cl- [n,g]
 1319'1830 Co-59 [n,g]
 1319'1830 Zr-92 [nn']
 1325'1836 Y-88 [dec] 106.6 d
 1325'1836 Sr- [n,g]
 1327 Cl- [n,g]
 1327 Al-27 [nn']
 1327'1838 Bi-214 [nat] 19.9 m
 1332 Si- [n,g]
 1332 Co-60 [dec] 5.3 a
 1332 Ni-60 [nn']
 1333 Cu- [nn']

1334 V-52 [dec] 3.7 m
 1336'1847 Bi-214 [nat] 19.8 m
 1342"2364 Cl- [n,g]
 1346 Cu-64 [dec] 12.8 h
 1347 Ti-48 [nn']
 1350 F-19 [nn']
 1358 S- [n,g]
 1358"2380 S- [n,g]
 1362'1873 Bi-214 [nat] 19.9 m
 1363 Hg-199 [n,g]
 1364 Cd- [n,g]
 1364"2386 Te- [n,g]
 1365'1876 Cu- [nn']
 1366 Pb- [nn']
 1369 Ge-77 [dec] 11.3 h
 1369 Mg-24 [nn']
 1369 Si-28 [mis]
 1369 Na-24 [dec] 15.0 h
 1369"2391 Sr- [n,g]
 1369"2391 Na-23 [nn']
 1370 F-19 [nn']
 1372'1883 Mn-55 [nn']
 1372'1883 Zn- [n,g]
 1377 Cs- [n,g]
 1377'1888 N-14 [n,g]
 1377'1888 I-127 [n,g]
 1378 Bi-214 [nat] 19.8 m
 1379'1890 Bi-214 [nat] 19.9 m
 1379'1890 S- [n,g]
 1379'1890 F-19 [n,g]
 1379'1890 P-31 [n,g]
 1379"2401 Mo- [n,g]
 1380'1891 Li- [n,g]
 1381 Ti-48 [n,g]
 1382"2404 Al-27 [nn']
 1385 Bi-214 [nat] 19.9 m
 1385'1896 Bi-214 [nat] 19.9 m
 1386'1897 Cl- [n,g]
 1387'1898 Cr-50 [n,g]
 1388 Ca- [n,g]
 1400 Zr-92 [nn']
 1401"2423 Ba- [nn']
 1402 Bi-214 [nat] 19.8 m
 1402 Sb- [n,g]
 1404'1915 Mn-55 [n,g]
 1404"2426 Si- [n,g]
 1405 Zr- [n,g]
 1408 Eu-152 [dec] 12.7 a
 1408 Bi-214 [nat] 19.8 m
 1408 Hg-199 [n,g]
 1408 Fe- [nn']
 1408'1919 Te- [n,g]
 1413 P-31 [n,g]
 1415"2437 Mn-55 [n,g]
 1418'1929 K- [n,g]
 1421 Ba-139 [dec] 82.9 m
 1426 Ba- [nn']
 1426 La-138 [mis]
 1426"2448 Bi-214 [nat] 19.8 m
 1430'1941 Ge-73 [n,g]

1431"2453 F-19 [n,g]
 1432"1943 Ca-40 [n,g]
 1432"2454 Ir- [n,g]
 1434 Cr-52 [nn']
 1434 V-52 [dec] 3.7 m
 1434"2456 Cd- [n,g]
 1435 Ba- [n,g]
 1435"2457 Pd- [n,g]
 1436 La-138 [dec] long
 1437 Te- [n,g]
 1437"1948 Ge-77 [dec] 54.0 s
 1437"2459 Os- [n,g]
 1438 Ti-48 [nn']
 1440"1951 Cl- [n,g]
 1441"1952 Ni-58 [n,g]
 1442 Cu- [nn']
 1444"1955 O-16 [nn']
 1446"1957 Cl- [n,g]
 1446"2468 Cl- [n,g]
 1446"2468 Hf- [n,g]
 1447 Ni-58 [nn']
 1448"2470 Pt- [n,g]
 1449"1960 O-16 [nn']
 1452 Ni- [nn']
 1459 Ac-228 [nat] 6.1 h
 1461 K-40 [nat] long
 1462"2484 Pd- [n,g]
 1466 As- [n,g]
 1467 Hg-199 [n,g]
 1468"1979 Pt- [n,g]
 1469"1980 Nb-93 [n,g]
 1470"2492 Cl- [n,g]
 1472 Ge-73 [n,g]
 1473"1984 Cl- [n,g]
 1473"1984 Al-27 [nn']
 1477"1988 Mn-55 [n,g]
 1480 O-16 [nn']
 1482 Ni-65 [dec] 152.0 m
 1483 Co-59 [nn']
 1483"2505 Co-60 [mis]
 1486"1997 Cd-117 [dec] 2.4 h
 1487 Cu- [nn']
 1487 Te- [n,g]
 1489"2000 Ge-77 [dec] 11.3 h
 1491 Pt- [n,g]
 1491"2002 Hg-199 [n,g]
 1492"2514 K- [nn']
 1493"2004 Cl- [n,g]
 1493"2004 Re- [n,g]
 1496 Ac-228 [nat] 6.1 h
 1496"2518 Na-23 [n,g]
 1498 Ti-48 [n,g]
 1500"2522 La-140 [dec] 40.2 h
 1501"2523 Fe- [nn']
 1501"2523 Mn-56 [dec] 2.6 h
 1502"2013 Ge- [n,g]
 1506"2528 F-19 [n,g]
 1508"2530 Ru- [n,g]
 1509 Bi-214 [nat] 19.8 m
 1509"2020 Fe- [mis]

1510^o2021 Cl-35 [n,g]
 1510^o2532 B- [n,g]
 1516^o2027 Na-23 [n,g]
 1517^o2539 Cl- [n,g]
 1521^o2032 Li- [n,g]
 1523^o2034 Cl- [n,g]
 1523^o2545 Fe- [nn']
 1524^o2546 K- [n,g]
 1525 K-42 [dec] 12.4 h
 1528 Cr-50 [nn']
 1528^o2039 Te- [n,g]
 1528^o2550 Cd- [n,g]
 1529 Mn-55 [nn']
 1530^o2552 Al-27 [nn']
 1531 Cr- [nn']
 1533^o2044 Mn-55 [n,g]
 1538^o2049 Ag- [n,g]
 1539 Bi-214 [nat] 19.9 m
 1543 Bi-214 [nat] 19.9 m
 1549^o2060 Zr-92 [nn']
 1554^o2065 Hf- [n,g]
 1557^o2068 Pt- [n,g]
 1562^o2073 K- [n,g]
 1562^o2073 B- [n,g]
 1563^o2074 Cl- [n,g]
 1563^o2074 Cs- [n,g]
 1563^o2074 Sb- [n,g]
 1568^o2590 Be-9 [n,g]
 1570 Hg-199 [n,g]
 1575 Ge-77 [dec] 11.3 h
 1576 Cd-117 [dec] 2.4 h
 1578^o2089 Mo-101 [dec] 14.6 m
 1578^o2600 Gd- [n,g]
 1579^o2601 Fe-56 [nn']
 1580^o2602 F-19 [n,g]
 1581^o2092 Cl- [n,g]
 1582^o2093 Si- [n,g]
 1583 Bi-214 [nat] 19.8 m
 1586 Ti-48 [n,g]
 1588 Ac-228 [nat] 6.1 h
 1588^o2610 Fe- [nn']
 1588^o2610 Te- [n,g]
 1592 Ir- [n,g]
 1593^o2615 Tl-208 [nat] 3.1 m
 1593^o2615 Pb- [nn']
 1595 Bi-214 [nat] 19.9 m
 1595^o2106 Cl- [n,g]
 1596^o2107 Gd- [n,g]
 1597 Ge-77 [dec] 54.0 s
 1597 La-140 [dec] 40.2 h
 1598 S- [n,g]
 1599 Bi-214 [nat] 19.9 m
 1599^o2110 Bi-214 [nat] 19.9 m
 1601 Cl- [n,g]
 1602^o2113 Sn- [n,g]
 1602^o2113 Fe-56 [nn']
 1602^o2113 Mn-56 [dec] 2.6 h
 1602^o2624 Cl- [n,g]
 1603^o2114 P-31 [n,g]
 1605 Hg-199 [n,g]

1606'2117 Li- [n,g]
 1608'2119 Bi-214 [nat] 19.8 m
 1609 V-51 [nn']
 1613 Fe-56 [n,g]
 1614"2636 Sc-45 [n,g]
 1617 K- [n,g]
 1617"2639 Ba- [n,g]
 1618'2129 Cl- [n,g]
 1618"2640 Hg-199 [n,g]
 1619'2130 Rb- [n,g]
 1619'2130 Ca- [n,g]
 1620 Fe- [n,g]
 1621 Bi-212 [nat] 60.6 m
 1623 Al-27 [n,g]
 1627 Na-23 [mis]
 1627"2649 Cl- [n,g]
 1628"2650 Cl- [nn']
 1630 Ac-228 [nat] 6.1 h
 1630 N-14 [mis]
 1630"2652 Sn- [n,g]
 1632 Hg-199 [n,g]
 1634 Ge-73 [n,g]
 1634 Na-22 [n,g]
 1635 Na-23 [nn']
 1636"2658 Mn-56 [dec] 2.6 h
 1638 Ac-228 [nat] 6.1 h
 1638"2660 Cd- [n,g]
 1639'2150 Cl- [nn']
 1639'2150 Rb- [n,g]
 1640 Ca- [nn']
 1640 Na-23 [nn']
 1641"2663 Al-27 [nn']
 1642"2664 Mo- [n,g]
 1643 Cl-38 [dec] 37.3 m
 1643'2154 P-31 [n,g]
 1646'2157 Cl- [n,g]
 1649'2160 K- [nn']
 1654"2676 Cl- [n,g]
 1657'2168 Cl-38 [dec] 37.3 m
 1657"2679 Gd- [n,g]
 1660 Si-28 [nn']
 1661 Bi-214 [nat] 19.8 m
 1661"2683 F-19 [n,g]
 1664'2175 Mn-55 [n,g]
 1666'2177 Cl- [n,g]
 1666'2177 Rb- [n,g]
 1668 Hg-199 [n,g]
 1668'2179 Sn- [n,g]
 1669'2180 O-16 [n,g]
 1672 Cu-63 [n,g]
 1672"2694 Zr- [n,g]
 1673'2184 Li- [n,g]
 1675'2186 Ba- [n,g]
 1676 Cl- [n,g]
 1677'2188 Hg-199 [n,g]
 1679 N-14 [n,g]
 1679"2701 Cd- [n,g]
 1680'2191 Zr- [n,g]
 1680"2702 Gd- [n,g]
 1684 Bi-214 [nat] 19.9 m

1686'2197 Pd- [n,g]
 1688"2710 Cl- [nn']
 1692 Sc-45 [n,g]
 1693 Hg-199 [n,g]
 1693'2204 Bi-214 [nat] 19.8 m
 1696'2207 Ba- [nn']
 1697'2208 O-16 [nn']
 1700 Pb- [nn']
 1701'2212 Al-27 [nn']
 1703'2214 Hg-199 [n,g]
 1705 Mn-55 [n,g]
 1711"2733 Cl- [n,g]
 1712'2223 H-1 [n,g]
 1714'2225 S- [nn']
 1719 Hg-199 [n,g]
 1719 Al- [nn']
 1719'2230 Si- [mis]
 1719'2230 Na-23 [nn']
 1719'2230 P-31 [nn']
 1719'2230 Si- [mis]
 1721"2743 O-16 [nn']
 1723 Ba- [nn']
 1723'2234 Al-27 [nn']
 1724 Nb-93 [n,g]
 1724 Ca- [n,g]
 1724"2746 Cl- [n,g]
 1725 Fe-56 [n,g]
 1725"2747 Te- [n,g]
 1728'2239 Cr-53 [n,g]
 1729'2240 S-32 [nn']
 1730 Bi-214 [nat] 19.9 m
 1731"2753 S- [n,g]
 1732"2754 Mg- [nn']
 1732"2754 Na-24 [dec] 15.0 h
 1735"2757 Fe-56 [nn']
 1738"2760 K- [nn']
 1739'2250 Ca- [n,g]
 1741"2763 Cl- [n,g]
 1743"2765 La- [n,g]
 1745 Co-59 [nn']
 1745 Cu-65 [n,g]
 1745"2767 Cd- [n,g]
 1747 Mn-55 [n,g]
 1749 F-19 [n,g]
 1750'2261 Os- [n,g]
 1753 O-16 [nn']
 1753 In- [n,g]
 1758 Hg-199 [n,g]
 1758'2269 Cl- [n,g]
 1758"2780 S-32 [nn']
 1760 O-16 [nn']
 1761 Ti-48 [n,g]
 1761'2272 Hg-199 [n,g]
 1762 Cl- [nn']
 1762 Ti- [n,g]
 1763'2274 Fe-56 [nn']
 1764'2275 Mn-55 [nn']
 1765 Bi-214 [nat] 19.9 m
 1765'2276 Al-27 [nn']
 1766'2277 Sr- [n,g]

1778 V-51 [n,g]
 1778'2289 Cl- [n,g]
 1778"2800 Cl- [n,g]
 1779 P-31 [n'd] 2.3 m
 1779 Si-28 [nn']
 1779 Al-28 [dec] 2.3 m
 1780 Cl- [nn']
 1780'2291 K- [n,g]
 1782'2293 Bi-214 [nat] 19.8 m
 1783'2294 Mn-55 [n,g]
 1784 Cr-53 [n,g]
 1785 Cl- [n,g]
 1786 Na-22 [mis]
 1787'2298 Hg-199 [n,g]
 1787'2298 Ru- [n,g]
 1789"2811 Ca- [n,g]
 1790"2812 Cl- [n,g]
 1792 Ti-48 [n,g]
 1798"2820 K- [nn']
 1800 Mg-24 [nn']
 1800'2311 Pt- [n,g]
 1801'2312 Cl- [n,g]
 1801'2312 O-16 [mis]
 1803'2314 Gd- [n,g]
 1806'2317 N-14 [nn']
 1806"2828 Mg- [n,g]
 1808"2830 Ca- [nn']
 1809 Al-27 [mis]
 1810 Fe-56 [nn']
 1810'2321 Cr-52 [n,g]
 1811 Mn-56 [dec] 2.6 h
 1813 V-51 [nn']
 1813"2835 Si- [nn']
 1820'2331 Mn-55 [n,g]
 1822 Pb- [nn']
 1823"2845 Cl- [n,g]
 1823"2845 Ni-58 [n,g]
 1826'2337 In- [n,g]
 1830 Cl- [n,g]
 1830 Co-59 [n,g]
 1830 Zr-92 [nn']
 1836 Y-88 [dec] 106.6 d
 1836 Sr- [n,g]
 1836"2858 Zn- [n,g]
 1838 Bi-214 [nat] 19.9 m
 1841"2863 Na-23 [n,g]
 1842"2864 Cl- [n,g]
 1847 Bi-214 [nat] 19.8 m
 1853'2364 Cl- [n,g]
 1869'2380 S- [n,g]
 1873 Bi-214 [nat] 19.9 m
 1874"2896 Cl- [n,g]
 1875'2386 Te- [n,g]
 1876 Cu- [nn']
 1879"2901 Hg-199 [n,g]
 1880'2391 Sr- [n,g]
 1880'2391 Na-23 [nn']
 1883 Mn-55 [nn']
 1883 Zn- [n,g]
 1888 N-14 [n,g]

1888 I-127 [n,g]
 1890 Bi-214 [nat] 19.9 m
 1890 S- [n,g]
 1890 F-19 [n,g]
 1890 P-31 [n,g]
 1890/2401 Mo- [n,g]
 1891 Li- [n,g]
 1893/2404 Al-27 [nn']
 1896 Bi-214 [nat] 19.9 m
 1897 Cl- [n,g]
 1898 Cr-50 [n,g]
 1899/2921 Hg-199 [n,g]
 1909/2931 S- [n,g]
 1911/2933 Zr- [n,g]
 1912/2423 Ba- [nn']
 1915 Mn-55 [n,g]
 1915/2426 Si- [n,g]
 1919 Te- [n,g]
 1926/2437 Mn-55 [n,g]
 1929 K- [n,g]
 1937/2448 Bi-214 [nat] 19.8 m
 1938/2960 Al-27 [n,g]
 1938/2960 Mn-56 [dec] 2.6 h
 1941 Ge-73 [n,g]
 1942/2453 F-19 [n,g]
 1943 Ca-40 [n,g]
 1943/2454 Ir- [n,g]
 1945/2456 Cd- [n,g]
 1946/2457 Pd- [n,g]
 1948 Ge-77 [dec] 54.0 s
 1948/2459 Os- [n,g]
 1951 Cl- [n,g]
 1952 Ni-58 [n,g]
 1953/2975 Cl- [n,g]
 1955 O-16 [nn']
 1957 Cl- [n,g]
 1957/2468 Cl- [n,g]
 1957/2468 Hf- [n,g]
 1958/2980 Al-27 [nn']
 1959/2470 Pt- [n,g]
 1960 O-16 [nn']
 1973/2484 Pd- [n,g]
 1976/2998 Cl- [n,g]
 1978/3000 Al-27 [n,g]
 1979 Pt- [n,g]
 1979/3001 Al-27 [nn']
 1980 Nb-93 [n,g]
 1981/2492 Cl- [n,g]
 1984 Cl- [n,g]
 1984 Al-27 [nn']
 1987/3009 Sr- [n,g]
 1988 Mn-55 [n,g]
 1994/2505 Co-60 [mis]
 1994/3016 Cl- [n,g]
 1997 Cd-117 [dec] 2.4 h
 2000 Ge-77 [dec] 11.3 h
 2002 Hg-199 [n,g]
 2003/2514 K- [nn']
 2004 Cl- [n,g]
 2004 Re- [n,g]

2005[#]3027 Ti-48 [n,g]
 2007[#]2518 Na-23 [n,g]
 2011[#]2522 La-140 [dec] 40.2 h
 2012[#]2523 Fe- [nn']
 2012[#]2523 Mn-56 [dec] 2.6 h
 2012[#]3034 Al-27 [n,g]
 2013 Ge- [n,g]
 2017[#]2528 F-19 [n,g]
 2019[#]2530 Ru- [n,g]
 2020 Fe- [mis]
 2021 Cl-35 [n,g]
 2021[#]2532 B- [n,g]
 2027 Na-23 [n,g]
 2028[#]2539 Cl- [n,g]
 2032 Li- [n,g]
 2032[#]3054 Mg- [n,g]
 2034 Cl- [n,g]
 2034[#]2545 Fe- [nn']
 2035[#]2546 K- [n,g]
 2039 Te- [n,g]
 2039[#]2550 Cd- [n,g]
 2040[#]3062 Cl- [n,g]
 2041[#]2552 Al-27 [nn']
 2044 Mn-55 [n,g]
 2049 Ag- [n,g]
 2052[#]3074 F-19 [n,g]
 2058[#]3080 Cl- [nn']
 2059[#]3081 Ca-49 [dec] 8.8 m
 2060 Zr-92 [nn']
 2065 Hf- [n,g]
 2066[#]3088 Se- [nat] 0.0 h
 2068 Pt- [n,g]
 2068[#]3090 O-16 [n,a]
 2073 K- [n,g]
 2073 B- [n,g]
 2074 Cl- [n,g]
 2074 Cs- [n,g]
 2074 Sb- [n,g]
 2076[#]3098 Na-23 [n,g]
 2079[#]2590 Be-9 [n,g]
 2088[#]3110 S-37 [dec] 5.1 m
 2089 Mo-101 [dec] 14.6 m
 2089[#]2600 Gd- [n,g]
 2090[#]2601 Fe-56 [nn']
 2091[#]2602 F-19 [n,g]
 2092 Cl- [n,g]
 2093 Si- [n,g]
 2094[#]3116 Cl- [n,g]
 2097[#]3119 Mn-56 [dec] 2.6 h
 2099[#]2610 Fe- [nn']
 2099[#]2610 Te- [n,g]
 2104[#]2615 Tl-208 [nat] 3.1 m
 2104[#]2615 Pb- [nn']
 2106 Cl- [n,g]
 2107 Gd- [n,g]
 2109[#]3131 Ga- [n,g]
 2110 Bi-214 [nat] 19.9 m
 2113 Sn- [n,g]
 2113 Fe-56 [nn']
 2113 Mn-56 [dec] 2.6 h

2113'2624 Cl- [n,g]
 2114 P-31 [n,g]
 2117 Li- [n,g]
 2119 Bi-214 [nat] 19.8 m
 2125'2636 Sc-45 [n,g]
 2128'2639 Ba- [n,g]
 2129 Cl- [n,g]
 2129'2640 Hg-199 [n,g]
 2130 Rb- [n,g]
 2130 Ca- [n,g]
 2131"3153 Re- [n,g]
 2138'2649 Cl- [n,g]
 2139'2650 Cl- [nn']
 2141'2652 Sn- [n,g]
 2147'2658 Mn-56 [dec] 2.6 h
 2148"3170 Cl- [nn']
 2149'2660 Cd- [n,g]
 2150 Cl- [nn']
 2150 Rb- [n,g]
 2152'2663 Al-27 [nn']
 2153'2664 Mo- [n,g]
 2154 P-31 [n,g]
 2157 Cl- [n,g]
 2160 K- [nn']
 2164"3186 Hg-199 [n,g]
 2165'2676 Cl- [n,g]
 2168 Cl-38 [dec] 37.3 m
 2168'2679 Gd- [n,g]
 2172'2683 F-19 [n,g]
 2174"3196 Si- [nn']
 2175 Mn-55 [n,g]
 2177 Cl- [n,g]
 2177 Rb- [n,g]
 2179 Sn- [n,g]
 2179"3201 Cl- [n,g]
 2180 O-16 [n,g]
 2181"3203 Fe-56 [nn']
 2183'2694 Zr- [n,g]
 2184 Li- [n,g]
 2186 Ba- [n,g]
 2188 Hg-199 [n,g]
 2190'2701 Cd- [n,g]
 2191 Zr- [n,g]
 2191'2702 Gd- [n,g]
 2197 Pd- [n,g]
 2199'2710 Cl- [nn']
 2199"3221 S-32 [n,g]
 2204 Bi-214 [nat] 19.8 m
 2207 Ba- [nn']
 2208 O-16 [nn']
 2212 Al-27 [nn']
 2214 Hg-199 [n,g]
 2222'2733 Cl- [n,g]
 2223 H-1 [n,g]
 2225 S- [nn']
 2228"3250 Fe- [nn']
 2230 Si- [mis]
 2230 Na-23 [nn']
 2230 P-31 [nn']
 2230 Si- [mis]

2231[#]3253 Cl- [n,g]
 2232[#]2743 O-16 [nn']
 2234 Al-27 [nn']
 2235[#]2746 Cl- [n,g]
 2236[#]2747 Te- [n,g]
 2239 Cr-53 [n,g]
 2240 S-32 [nn']
 2242[#]2753 S- [n,g]
 2243[#]2754 Mg- [nn']
 2243[#]2754 Na-24 [dec] 15.0 h
 2246[#]2757 Fe-56 [nn']
 2246[#]3268 Fe-56 [n,g]
 2247[#]3269 Cl- [n,g]
 2249[#]2760 K- [nn']
 2249[#]3271 O-16 [n,g]
 2250 Ca- [n,g]
 2252[#]2763 Cl- [n,g]
 2254[#]2765 La- [n,g]
 2256[#]2767 Cd- [n,g]
 2261 Os- [n,g]
 2266[#]3288 Hg-199 [n,g]
 2269 Cl- [n,g]
 2269[#]2780 S-32 [nn']
 2271[#]3293 Cl- [n,g]
 2272 Hg-199 [n,g]
 2274 Fe-56 [nn']
 2275 Mn-55 [nn']
 2276 Al-27 [nn']
 2277 Sr- [n,g]
 2279[#]3301 Mg- [n,g]
 2286[#]3308 B- [n,g]
 2289 Cl- [n,g]
 2289[#]2800 Cl- [n,g]
 2291 K- [n,g]
 2293 Bi-214 [nat] 19.8 m
 2294 Mn-55 [n,g]
 2294[#]3316 Cl- [n,g]
 2298 Hg-199 [n,g]
 2298 Ru- [n,g]
 2300[#]2811 Ca- [n,g]
 2301[#]2812 Cl- [n,g]
 2309[#]2820 K- [nn']
 2311 Pt- [n,g]
 2311[#]3333 Cl- [n,g]
 2312 Cl- [n,g]
 2312 O-16 [mis]
 2312[#]3334 Sn- [n,g]
 2314 Gd- [n,g]
 2317 N-14 [nn']
 2317[#]2828 Mg- [n,g]
 2319[#]2830 Ca- [nn']
 2321 Cr-52 [n,g]
 2324[#]2835 Si- [nn']
 2331 Mn-55 [n,g]
 2334[#]2845 Cl- [n,g]
 2334[#]2845 Ni-58 [n,g]
 2337 In- [n,g]
 2346[#]3368 Be-9 [n,g]
 2347[#]2858 Zn- [n,g]
 2348[#]3370 S-32 [n,g]

2349"3371 Mn-56 [dec] 2.6 h
 2352'2863 Na-23 [n,g]
 2352"3374 Cl- [n,g]
 2353'2864 Cl- [n,g]
 2364 Cl- [n,g]
 2380 S- [n,g]
 2385'2896 Cl- [n,g]
 2386 Te- [n,g]
 2386"3408 Mn-55 [n,g]
 2390'2901 Hg-199 [n,g]
 2391 Sr- [n,g]
 2391 Na-23 [nn']
 2392"3414 Mg- [n,g]
 2401 Mo- [n,g]
 2404 Al-27 [nn']
 2407"3429 Cl- [n,g]
 2410'2921 Hg-199 [n,g]
 2415"3437 Fe-56 [n,g]
 2420'2931 S- [n,g]
 2422'2933 Zr- [n,g]
 2422"3444 Be-9 [n,g]
 2423 Ba- [nn']
 2426 Si- [n,g]
 2426"3448 Fe-56 [nn']
 2437 Mn-55 [n,g]
 2437"3459 Sn- [n,g]
 2443"3465 Al-27 [n,g]
 2448 Bi-214 [nat] 19.8 m
 2448"3470 Th-232 [n,g]
 2449'2960 Al-27 [n,g]
 2449'2960 Mn-56 [dec] 2.6 h
 2449"3471 W- [n,g]
 2453 F-19 [n,g]
 2453"3475 Ti-48 [n,g]
 2453"3475 Zr- [n,g]
 2454 Ir- [n,g]
 2455"3477 Cl- [n,g]
 2456 Cd- [n,g]
 2457 Pd- [n,g]
 2459 Os- [n,g]
 2459"3481 Cl- [n,g]
 2464'2975 Cl- [n,g]
 2468 Cl- [n,g]
 2468 Hf- [n,g]
 2469'2980 Al-27 [nn']
 2470 Pt- [n,g]
 2471"3493 Li- [n,g]
 2480"3502 Cl- [n,g]
 2483"3505 B- [n,g]
 2484 Pd- [n,g]
 2487'2998 Cl- [n,g]
 2488"3510 Si- [mis]
 2489'3000 Al-27 [n,g]
 2490'3001 Al-27 [nn']
 2492 Cl- [n,g]
 2498'3009 Sr- [n,g]
 2501"3523 P-31 [n,g]
 2503"3525 Th-232 [n,g]
 2505 Co-60 [mis]
 2505'3016 Cl- [n,g]

2508[#]3530 N-14 [n,g]
 2510[#]3532 Cl- [n,g]
 2514 K- [nn']
 2516[#]3027 Ti-48 [n,g]
 2517[#]3539 Si-28 [n,g]
 2518 Na-23 [n,g]
 2522 La-140 [dec] 40.2 h
 2522[#]3544 Te- [n,g]
 2523 Fe- [nn']
 2523 Mn-56 [dec] 2.6 h
 2523[#]3034 Al-27 [n,g]
 2525[#]3547 K- [n,g]
 2528 F-19 [n,g]
 2530 Ru- [n,g]
 2532 B- [n,g]
 2539 Cl- [n,g]
 2540[#]3562 Cl- [n,g]
 2543[#]3054 Mg- [n,g]
 2545 Fe- [nn']
 2546 K- [n,g]
 2550 Cd- [n,g]
 2551[#]3062 Cl- [n,g]
 2552 Al-27 [nn']
 2561[#]3583 U-238 [n,g]
 2563[#]3074 F-19 [n,g]
 2563[#]3585 Li- [n,g]
 2565[#]3587 Cl- [n,g]
 2566[#]3588 Na-23 [n,g]
 2567[#]3589 F-19 [n,g]
 2569[#]3080 Cl- [nn']
 2570[#]3081 Ca-49 [dec] 8.8 m
 2570[#]3592 Al-27 [n,g]
 2571[#]3593 K- [nn']
 2577[#]3088 Se- [nat] 0.0 h
 2579[#]3090 O-16 [n,a]
 2579[#]3601 Cl- [n,g]
 2579[#]3601 Fe-56 [nn']
 2587[#]3098 Na-23 [n,g]
 2588[#]3610 Ca- [n,g]
 2590 Be-9 [n,g]
 2599[#]3110 S-37 [dec] 5.1 m
 2600 Gd- [n,g]
 2601 Fe-56 [nn']
 2602 F-19 [n,g]
 2605[#]3116 Cl- [n,g]
 2608[#]3119 Mn-56 [dec] 2.6 h
 2610 Fe- [nn']
 2610 Te- [n,g]
 2615 Tl-208 [nat] 3.1 m
 2615 Pb- [nn']
 2620[#]3131 Ga- [n,g]
 2620[#]3642 Ba- [n,g]
 2624 Cl- [n,g]
 2636 Sc-45 [n,g]
 2638[#]3660 Cl- [n,g]
 2639 Ba- [n,g]
 2639[#]3661 Si- [n,g]
 2640 Hg-199 [n,g]
 2642[#]3153 Re- [n,g]
 2649 Cl- [n,g]

2650 Cl- [nn']
 2652 Sn- [n,g]
 2653^u3675 N-14 [n,g]
 2658 Mn-56 [dec] 2.6 h
 2658^u3680 O-16 [n,a]
 2659^u3170 Cl- [nn']
 2660 Cd- [n,g]
 2662^u3684 C- [n,g]
 2663 Al-27 [nn']
 2664 Mo- [n,g]
 2675^u3186 Hg-199 [n,g]
 2676 Cl- [n,g]
 2679 Gd- [n,g]
 2683 F-19 [n,g]
 2685^u3196 Si- [nn']
 2688^u3710 Cl- [n,g]
 2690^u3201 Cl- [n,g]
 2692^u3203 Fe-56 [nn']
 2694 Zr- [n,g]
 2699^u3721 Cr-53 [n,g]
 2701 Cd- [n,g]
 2701^u3723 S-32 [n,g]
 2702 Gd- [n,g]
 2708^u3730 Ca-40 [nn']
 2710 Cl- [nn']
 2710^u3221 S-32 [n,g]
 2728^u3750 Cl- [n,g]
 2733 Cl- [n,g]
 2738^u3760 Ca- [n,g]
 2739^u3250 Fe- [nn']
 2742^u3253 Cl- [n,g]
 2743 O-16 [nn']
 2746 Cl- [n,g]
 2747 Te- [n,g]
 2753 S- [n,g]
 2754 Mg- [nn']
 2754 Na-24 [dec] 15.0 h
 2754^u3776 Cl- [n,g]
 2757 Fe-56 [nn']
 2757^u3268 Fe-56 [n,g]
 2758^u3269 Cl- [n,g]
 2760 K- [nn']
 2760^u3271 O-16 [n,g]
 2763 Cl- [n,g]
 2765 La- [n,g]
 2767 Cd- [n,g]
 2777^u3288 Hg-199 [n,g]
 2780 S-32 [nn']
 2782^u3293 Cl- [n,g]
 2790^u3301 Mg- [n,g]
 2793^u3815 Mn-55 [n,g]
 2797^u3308 B- [n,g]
 2800 Cl- [n,g]
 2802^u3824 Cl- [n,g]
 2805^u3316 Cl- [n,g]
 2809^u3831 Mg- [n,g]
 2811 Ca- [n,g]
 2811^u3833 O-16 [nn']
 2812 Cl- [n,g]
 2820 K- [nn']

2822'3333 Cl- [n,g]
 2823'3334 Sn- [n,g]
 2828 Mg- [n,g]
 2828"3850 O-16 [n,a]
 2828"3850 Na-24 [dec] 15.0 h
 2830 Ca- [nn']
 2835 Si- [nn']
 2845 Cl- [n,g]
 2845 Ni-58 [n,g]
 2855"3877 P-31 [n,g]
 2855"3877 In- [n,g]
 2857'3368 Be-9 [n,g]
 2858 Zn- [n,g]
 2859'3370 S-32 [n,g]
 2860'3371 Mn-56 [dec] 2.6 h
 2863 Na-23 [n,g]
 2863'3374 Cl- [n,g]
 2864 Cl- [n,g]
 2873"3895 Ge-76 [n,g]
 2878"3900 Ca-40 [nn']
 2895"3917 Mg-24 [n,g]
 2896 Cl- [n,g]
 2897'3408 Mn-55 [n,g]
 2901 Hg-199 [n,g]
 2903'3414 Mg- [n,g]
 2918'3429 Cl- [n,g]
 2921 Hg-199 [n,g]
 2926'3437 Fe-56 [n,g]
 2926"3948 Th-232 [n,g]
 2931 S- [n,g]
 2933 Zr- [n,g]
 2933'3444 Be-9 [n,g]
 2937'3448 Fe-56 [nn']
 2942"3964 Cl- [n,g]
 2948'3459 Sn- [n,g]
 2954'3465 Al-27 [n,g]
 2959'3470 Th-232 [n,g]
 2959"3981 Cl- [n,g]
 2960 Al-27 [n,g]
 2960 Mn-56 [dec] 2.6 h
 2960'3471 W- [n,g]
 2960"3982 Na-23 [n,g]
 2961"3983 U-238 [n,g]
 2964'3475 Ti-48 [n,g]
 2964'3475 Zr- [n,g]
 2966'3477 Cl- [n,g]
 2969"3991 U-238 [n,g]
 2970'3481 Cl- [n,g]
 2975 Cl- [n,g]
 2980 Al-27 [nn']
 2982'3493 Li- [n,g]
 2991'3502 Cl- [n,g]
 2994'3505 B- [n,g]
 2998 Cl- [n,g]
 2999'3510 Si- [mis]
 3000 Al-27 [n,g]
 3001 Al-27 [nn']
 3006"4028 Cl- [n,g]
 3009 Sr- [n,g]
 3012'3523 P-31 [n,g]

3014'3525 Th-232 [n,g]
 3016 Cl- [n,g]
 3019'3530 N-14 [n,g]
 3021'3532 Cl- [n,g]
 3027 Ti-48 [n,g]
 3028'3539 Si-28 [n,g]
 3033'3544 Te- [n,g]
 3033"4055 Cl- [n,g]
 3033"4055 Bi- [n,g]
 3034 Al-27 [n,g]
 3036'3547 K- [n,g]
 3039"4061 U-238 [n,g]
 3051'3562 Cl- [n,g]
 3054 Mg- [n,g]
 3061"4083 Cl- [n,g]
 3062 Cl- [n,g]
 3072'3583 U-238 [n,g]
 3074 F-19 [n,g]
 3074'3585 Li- [n,g]
 3074"4096 Ba-137 [n,g]
 3076'3587 Cl- [n,g]
 3077'3588 Na-23 [n,g]
 3078'3589 F-19 [n,g]
 3078"4100 K- [nn']
 3080 Cl- [nn']
 3080"4102 Bi- [n,g]
 3081 Ca-49 [dec] 8.8 m
 3081'3592 Al-27 [n,g]
 3081"4103 I-127 [n,g]
 3082'3593 K- [nn']
 3088 Se- [nat] 0.0 h
 3090 O-16 [n,a]
 3090'3601 Cl- [n,g]
 3090'3601 Fe-56 [nn']
 3090"4112 Cl- [n,g]
 3098 Na-23 [n,g]
 3099'3610 Ca- [n,g]
 3110 S-37 [dec] 5.1 m
 3112"4134 Al-27 [n,g]
 3116 Cl- [n,g]
 3116"4138 Cl- [n,g]
 3116"4138 Zn- [n,g]
 3119 Mn-56 [dec] 2.6 h
 3131 Ga- [n,g]
 3131'3642 Ba- [n,g]
 3141"4163 O-16 [nn']
 3149'3660 Cl- [n,g]
 3149"4171 Pb- [n,g]
 3150'3661 Si- [n,g]
 3153 Re- [n,g]
 3164'3675 N-14 [n,g]
 3167"4189 Au-197 [n,g]
 3169'3680 O-16 [n,a]
 3170 Cl- [nn']
 3171"4193 Ge-76 [n,g]
 3173'3684 C- [n,g]
 3178"4200 Al-27 [n,g]
 3186 Hg-199 [n,g]
 3186"4208 Cl- [n,g]
 3196 Si- [nn']

3197[#]4219 Fe-56 [n,g]
 3199[#]3710 Cl- [n,g]
 3199[#]4221 Ta-181 [n,g]
 3201 Cl- [n,g]
 3203 Fe-56 [nn']
 3205[#]4227 In- [n,g]
 3210[#]3721 Cr-53 [n,g]
 3210[#]4232 Mg- [nn']
 3212[#]3723 S-32 [n,g]
 3219[#]3730 Ca-40 [nn']
 3221 S-32 [n,g]
 3227[#]4249 W- [n,g]
 3238[#]4260 Al-27 [n,g]
 3239[#]3750 Cl- [n,g]
 3249[#]3760 Ca- [n,g]
 3250 Fe- [nn']
 3253 Cl- [n,g]
 3265[#]3776 Cl- [n,g]
 3268 Fe-56 [n,g]
 3269 Cl- [n,g]
 3271 O-16 [n,g]
 3277[#]4299 Cl- [n,g]
 3288 Hg-199 [n,g]
 3293 Cl- [n,g]
 3293[#]4315 Ta-181 [n,g]
 3299[#]4321 Cu-65 [n,g]
 3301 Mg- [n,g]
 3304[#]3815 Mn-55 [n,g]
 3307[#]4329 Cl- [n,g]
 3308 B- [n,g]
 3313[#]3824 Cl- [n,g]
 3316 Cl- [n,g]
 3320[#]3831 Mg- [n,g]
 3321[#]4343 Hf- [n,g]
 3322[#]3833 O-16 [nn']
 3329[#]4351 Ru- [n,g]
 3333 Cl- [n,g]
 3334 Sn- [n,g]
 3336[#]4358 Cl- [n,g]
 3339[#]3850 O-16 [n,a]
 3339[#]3850 Na-24 [dec] 15.0 h
 3339[#]4361 K-39 [n,g]
 3355[#]4377 Cl- [n,g]
 3366[#]3877 P-31 [n,g]
 3366[#]3877 In- [n,g]
 3368 Be-9 [n,g]
 3370 S-32 [n,g]
 3371 Mn-56 [dec] 2.6 h
 3374 Cl- [n,g]
 3384[#]3895 Ge-76 [n,g]
 3389[#]3900 Ca-40 [nn']
 3392[#]4414 Cl- [n,g]
 3397[#]4419 Ca-40 [n,g]
 3398[#]4420 O-16 [mis]
 3406[#]3917 Mg-24 [n,g]
 3408 Mn-55 [n,g]
 3409[#]4431 S-32 [n,g]
 3411[#]4433 B-11 [n,g]
 3411[#]4433 B-12 [dec] <0.1 s
 3411[#]4433 C-12 [nn']

3414 Mg- [n,g]
 3429 Cl- [n,g]
 3437 Fe-56 [n,g]
 3437'3948 Th-232 [n,g]
 3438"4460 N- [mis]
 3444 Be-9 [n,g]
 3448 Fe-56 [nn']
 3453'3964 Cl- [n,g]
 3459 Sn- [n,g]
 3461"4483 Ta-181 [n,g]
 3465 Al-27 [n,g]
 3468"4490 Cl-37 [n,g]
 3470 Th-232 [n,g]
 3470'3981 Cl- [n,g]
 3471 W- [n,g]
 3471'3982 Na-23 [n,g]
 3471"4493 Si- [nn']
 3472'3983 U-238 [n,g]
 3475 Ti-48 [n,g]
 3475 Zr- [n,g]
 3477 Cl- [n,g]
 3478"4500 Al-27 [nn']
 3480'3991 U-238 [n,g]
 3481 Cl- [n,g]
 3486"4508 N-14 [n,g]
 3488"4510 Rh-103 [n,g]
 3493 Li- [n,g]
 3502 Cl- [n,g]
 3502"4524 Cl- [n,g]
 3505 B- [n,g]
 3508"4530 Zr- [n,g]
 3509"4531 Os- [n,g]
 3510 Si- [mis]
 3517'4028 Cl- [n,g]
 3523 P-31 [n,g]
 3525 Th-232 [n,g]
 3527"4549 Cl- [n,g]
 3530 N-14 [n,g]
 3532 Cl- [n,g]
 3539 Si-28 [n,g]
 3544 Fe- [n,g]
 3544'4055 Cl- [n,g]
 3544'4055 Bi- [n,g]
 3544"4566 Se- [n,g]
 3545"4567 Mn-55 [n,g]
 3547 K- [n,g]
 3550'4061 U-238 [n,g]
 3553"4575 Hg-199 [n,g]
 3562 Cl- [n,g]
 3565"4587 Cl- [n,g]
 3572'4083 Cl- [n,g]
 3583 U-238 [n,g]
 3585 Li- [n,g]
 3585'4096 Ba-137 [n,g]
 3587 Cl- [n,g]
 3588 Na-23 [n,g]
 3589 F-19 [n,g]
 3589'4100 K- [nn']
 3591'4102 Bi- [n,g]
 3592 Al-27 [n,g]

3592⁴4103 I-127 [n,g]
 3593 K- [nn']
 3594⁴4616 Cl- [n,g]
 3596⁴4618 Ta-181 [n,g]
 3601 Cl- [n,g]
 3601 Fe-56 [nn']
 3601⁴4112 Cl- [n,g]
 3605⁴4627 Ru- [n,g]
 3610 Ca- [n,g]
 3617⁴4639 S-32 [n,g]
 3623⁴4134 Al-27 [n,g]
 3627⁴4138 Cl- [n,g]
 3627⁴4138 Zn- [n,g]
 3642 Ba- [n,g]
 3649⁴4671 P-31 [n,g]
 3652⁴4163 O-16 [nn']
 3653⁴4675 Hg-199 [n,g]
 3660 Cl- [n,g]
 3660⁴4171 Pb- [n,g]
 3661 Si- [n,g]
 3661⁴4683 Cl- [n,g]
 3663⁴4685 W- [n,g]
 3668⁴4690 Al-27 [n,g]
 3675 N-14 [n,g]
 3678⁴4189 Au-197 [n,g]
 3680 O-16 [n,a]
 3682⁴4193 Ge-76 [n,g]
 3684 C- [n,g]
 3688⁴4710 B- [n,g]
 3689⁴4200 Al-27 [n,g]
 3697⁴4208 Cl- [n,g]
 3698⁴4720 Ag- [n,g]
 3701⁴4723 Fe-56 [n,g]
 3701⁴4723 Ba-138 [n,g]
 3707⁴4729 Cl- [n,g]
 3708⁴4219 Fe-56 [n,g]
 3710 Cl- [n,g]
 3710⁴4221 Ta-181 [n,g]
 3712⁴4734 Al-27 [n,g]
 3716⁴4227 In- [n,g]
 3717⁴4739 Hg-199 [n,g]
 3718⁴4740 Nb-93 [n,g]
 3721 Cr-53 [n,g]
 3721⁴4232 Mg- [nn']
 3723 S-32 [n,g]
 3728⁴4750 Ca- [n,g]
 3730 Ca-40 [nn']
 3731⁴4753 Cl- [n,g]
 3731⁴4753 Tl- [n,g]
 3737⁴4759 Hg-199 [n,g]
 3738⁴4249 W- [n,g]
 3749⁴4260 Al-27 [n,g]
 3750 Cl- [n,g]
 3753⁴4775 In- [n,g]
 3760 Ca- [n,g]
 3760⁴4782 Ta-181 [n,g]
 3761⁴4783 As- [n,g]
 3776 Cl- [n,g]
 3788⁴4299 Cl- [n,g]
 3788⁴4810 Cd- [n,g]

3788#4810 Fe-56 [n,g]
 3791#4813 Os- [n,g]
 3804#4315 Ta-181 [n,g]
 3808#4830 Cl- [n,g]
 3810#4321 Cu-65 [n,g]
 3815 Mn-55 [n,g]
 3818#4329 Cl- [n,g]
 3818#4840 Ga- [n,g]
 3824 Cl- [n,g]
 3831 Mg- [n,g]
 3832#4343 Hf- [n,g]
 3833 O-16 [nn']
 3838#4860 Ir- [n,g]
 3839#4861 Re- [n,g]
 3840#4351 Ru- [n,g]
 3847#4358 Cl- [n,g]
 3848#4870 S-32 [n,g]
 3850 O-16 [n,a]
 3850 Na-24 [dec] 15.0 h
 3850#4361 K-39 [n,g]
 3859#4881 Ti-48 [n,g]
 3861#4883 Cl- [n,g]
 3866#4377 Cl- [n,g]
 3877 P-31 [n,g]
 3877 In- [n,g]
 3892#4914 Tl- [n,g]
 3895 Ge-76 [n,g]
 3900 Ca-40 [nn']
 3902#4924 Hg- [mis]
 3903#4414 Cl- [n,g]
 3908#4419 Ca-40 [n,g]
 3909#4420 O-16 [mis]
 3912#4934 Si-28 [n,g]
 3917 Mg-24 [n,g]
 3920#4431 S-32 [n,g]
 3921#4943 Ir- [n,g]
 3922#4433 B-11 [n,g]
 3922#4433 B-12 [dec] <0.1 s
 3922#4433 C-12 [nn']
 3923#4945 C-12 [n,g]
 3927#4949 O-16 [nn']
 3928#4950 Fe-56 [n,g]
 3928#4950 Mn-55 [n,g]
 3928#4950 I-127 [n,g]
 3932#4954 Hg-199 [n,g]
 3945#4967 Ti-48 [n,g]
 3947#4969 In- [n,g]
 3948 Th-232 [n,g]
 3949#4460 N- [mis]
 3954#4976 Co-59 [n,g]
 3958#4980 Cl- [n,g]
 3964 Cl- [n,g]
 3972#4483 Ta-181 [n,g]
 3979#4490 Cl-37 [n,g]
 3981 Cl- [n,g]
 3982 Na-23 [n,g]
 3982#4493 Si- [nn']
 3983 J-238 [n,g]
 3986#5008 Re- [n,g]
 3989#4500 Al-27 [nn']

3991 U-238 [n,g]
 3993"5015 Mn-55 [n,g]
 3995"5017 Cl- [n,g]
 3997"4508 N-14 [n,g]
 3998"5020 Cs- [n,g]
 3999"4510 Rh-103 [n,g]
 4001"5023 Ru- [n,g]
 4013"4524 Cl- [n,g]
 4019"4530 Zr- [n,g]
 4020"4531 Os- [n,g]
 4020"5042 Fe-57 [n,g]
 4022"5044 Cu-65 [n,g]
 4025"5047 S-32 [n,g]
 4028 Cl- [n,g]
 4028"5050 Hg-199 [n,g]
 4029"5051 Ge-76 [n,g]
 4038"4549 Cl- [n,g]
 4045"5067 Mn-55 [n,g]
 4052"5074 Re- [n,g]
 4055 Cl- [n,g]
 4055 Bi- [n,g]
 4055"4566 Se- [n,g]
 4056"4567 Mn-55 [n,g]
 4057"5079 Cl- [n,g]
 4061 U-238 [n,g]
 4064"4575 Hg-199 [n,g]
 4072"5094 I-127 [n,g]
 4076"4587 Cl- [n,g]
 4081"5103 In- [n,g]
 4082"5104 Nb-93 [n,g]
 4083 Cl- [n,g]
 4085"5107 Si- [n,g]
 4096 Ba-137 [n,g]
 4100 K- [nn']
 4102 Bi- [n,g]
 4103 I-127 [n,g]
 4105"4616 Cl- [n,g]
 4107"4618 Ta-181 [n,g]
 4112 Cl- [n,g]
 4115"5137 Re- [n,g]
 4116"4627 Ru- [n,g]
 4119"5141 In- [n,g]
 4120"5142 V-51 [n,g]
 4125"5147 Os- [n,g]
 4126"5148 Au-197 [n,g]
 4128"4639 S-32 [n,g]
 4130"5152 Cl- [n,g]
 4134 Al-27 [n,g]
 4138 Cl- [n,g]
 4138 Zn- [n,g]
 4142"5164 W-186 [n,g]
 4151"5173 Pt- [n,g]
 4159"5181 Mn-55 [n,g]
 4159"5181 Tl- [n,g]
 4160"4671 P-31 [n,g]
 4160"5182 Co-59 [n,g]
 4163 O-16 [nn']
 4164"4675 Hg-199 [n,g]
 4166"5188 Cu-63 [n,g]
 4171 Pb- [n,g]

4172^u4683 Cl- [n,g]
 4173^u5195 Ga- [n,g]
 4174^u4685 W- [n,g]
 4176^u5198 I-127 [n,g]
 4179^u4690 Al-27 [n,g]
 4184^u5206 Cl- [n,g]
 4186^u5210 V-51 [n,g]
 4189 Au-197 [n,g]
 4191^u5213 Pd- [n,g]
 4193 Ge-76 [n,g]
 4199^u4710 B- [n,g]
 4200 Al-27 [n,g]
 4208 Cl- [n,g]
 4209^u4720 Ag- [n,g]
 4212^u4723 Fe-56 [n,g]
 4212^u4723 Ba-138 [n,g]
 4218^u4729 Cl- [n,g]
 4218^u5240 Ag- [n,g]
 4219 Fe-56 [n,g]
 4221 Ta-181 [n,g]
 4223^u4734 Al-27 [n,g]
 4224^u5246 Cl- [n,g]
 4227 In- [n,g]
 4228^u4739 Hg-199 [n,g]
 4229^u4740 Nb-93 [n,g]
 4231^u5253 Nb-93 [n,g]
 4231^u5253 Cs- [n,g]
 4232 Mg- [nn']
 4232^u5254 Mn-55 [n,g]
 4233^u5255 Pt-195 [n,g]
 4239^u4750 Ca- [n,g]
 4240^u5262 W-186 [n,g]
 4242^u4753 Cl- [n,g]
 4242^u4753 Tl- [n,g]
 4242^u5264 Zr- [n,g]
 4244^u5266 Rh-103 [n,g]
 4245^u5267 N-14 [n,g]
 4248^u4759 Hg-199 [n,g]
 4249 W- [n,g]
 4252^u5274 Os- [n,g]
 4256^u5278 Re- [n,g]
 4258^u5280 Tl- [n,g]
 4260 Al-27 [n,g]
 4264^u4775 In- [n,g]
 4271^u4782 Ta-181 [n,g]
 4272^u4783 As- [n,g]
 4275^u5297 N-14 [n,g]
 4285^u5307 Pt- [n,g]
 4289^u5311 Ni-58 [n,g]
 4297^u5319 Cu-65 [n,g]
 4298^u5320 W- [n,g]
 4299 Cl- [n,g]
 4299^u4810 Cd- [n,g]
 4299^u4810 Fe-56 [n,g]
 4302^u4813 Os- [n,g]
 4315 Ta-181 [n,g]
 4317^u5339 Ga- [n,g]
 4319^u4830 Cl- [n,g]
 4321 Cu-65 [n,g]
 4321^u5343 Ta-181 [n,g]

4325"5347 Rh-103 [n,g]
 4329 Cl- [n,g]
 4329'4840 Ga- [n,g]
 4343 Hf- [n,g]
 4349'4860 Ir- [n,g]
 4350'4861 Re- [n,g]
 4351 Ru- [n,g]
 4355"5377 Cs- [n,g]
 4358 Cl- [n,g]
 4358"5380 K-39 [n,g]
 4359'4870 S-32 [n,g]
 4361 K-39 [n,g]
 4366"5388 Hg-199 [n,g]
 4370'4881 Ti-48 [n,g]
 4370"5392 Sn- [n,g]
 4372'4883 Cl- [n,g]
 4377 Cl- [n,g]
 4394"5416 As- [n,g]
 4396"5418 Cu-63 [n,g]
 4398"5420 S-32 [n,g]
 4403'4914 Tl- [n,g]
 4409"5431 Cd- [n,g]
 4413'4924 Hg- [mis]
 4414 Cl- [n,g]
 4414"5436 Mn-55 [n,g]
 4419 Ca-40 [n,g]
 4420 O-16 [mis]
 4423'4934 Si-28 [n,g]
 4429"5451 Ge-70 [n,g]
 4430"5452 Mg- [n,g]
 4431 S-32 [n,g]
 4432'4943 Ir- [n,g]
 4433 B-11 [n,g]
 4433 B-12 [dec] <0.1 s
 4433 C-12 [nn']
 4434'4945 C-12 [n,g]
 4438'4949 O-16 [nn']
 4439'4950 Fe-56 [n,g]
 4439'4950 Mn-55 [n,g]
 4439'4950 I-127 [n,g]
 4443'4954 Hg-199 [n,g]
 4452"5474 Zn- [n,g]
 4456'4967 Ti-48 [n,g]
 4458'4969 In- [n,g]
 4460 N- [mis]
 4465'4976 Co-59 [n,g]
 4469'4980 Cl- [n,g]
 4471"5493 Fe-57 [n,g]
 4483 Ta-181 [n,g]
 4483"5505 Cs- [n,g]
 4484"5506 Hf- [n,g]
 4486"5508 Br- [n,g]
 4490 Cl-37 [n,g]
 4493 Si- [nn']
 4493"5515 Ca- [n,g]
 4493"5515 V-51 [n,g]
 4495"5517 Cl- [n,g]
 4496"5518 Ge-72 [n,g]
 4497'5008 Re- [n,g]
 4500 Al-27 [nn']

4504'5015 Mn-55 [n,g]
 4505'5527 Mn-55 [n,g]
 4506'5017 Cl- [n,g]
 4508 N-14 [n,g]
 4509'5020 Cs- [n,g]
 4510 Rh-103 [n,g]
 4510"5532 N-14 [n,g]
 4511"5533 Sm- [n,g]
 4512'5023 Ru- [n,g]
 4524 Cl- [n,g]
 4530 Zr- [n,g]
 4531 Os- [n,g]
 4531'5042 Fe-57 [n,g]
 4533'5044 Cu-65 [n,g]
 4536'5047 S-32 [n,g]
 4538"5560 N-14 [n,g]
 4538"5560 I-127 [n,g]
 4539'5050 Hg-199 [n,g]
 4540'5051 Ge-76 [n,g]
 4541"5563 Sb- [n,g]
 4543"5565 Ir- [n,g]
 4544"5566 Hg-199 [n,g]
 4549 Cl- [n,g]
 4549"5571 Cs- [n,g]
 4556'5067 Mn-55 [n,g]
 4561"5583 Gd- [n,g]
 4563'5074 Re- [n,g]
 4563"5585 Cl- [n,g]
 4566 Se- [n,g]
 4567 Mn-55 [n,g]
 4568'5079 Cl- [n,g]
 4575 Hg-199 [n,g]
 4579"5601 Ga- [n,g]
 4580"5602 Mo- [n,g]
 4580"5602 Se- [n,g]
 4582"5604 Cl- [n,g]
 4582"5604 Tl- [n,g]
 4583'5094 I-127 [n,g]
 4587 Cl- [n,g]
 4587"5609 Bi-209 [mis]
 4589"5611 Pt- [n,g]
 4592'5103 In- [n,g]
 4593'5104 Nb-93 [n,g]
 4596'5107 Si- [n,g]
 4597"5619 Cr-52 [n,g]
 4598"5620 Ca- [nn']
 4615"5637 Cs- [n,g]
 4616 Cl- [n,g]
 4618 Ta-181 [n,g]
 4620"5642 Tl- [n,g]
 4626'5137 Re- [n,g]
 4627 Ru- [n,g]
 4630'5141 In- [n,g]
 4631'5142 V-51 [n,g]
 4636'5147 Os- [n,g]
 4636"5658 Hg-199 [n,g]
 4637'5148 Au-197 [n,g]
 4638"5660 Co-59 [n,g]
 4639 S-32 [n,g]
 4641'5152 Cl- [n,g]

4645"5667 Ir- [n,g]
4646"5668 Te- [n,g]
4653"5164 W-186 [n,g]
4662"5173 Pt- [n,g]
4662"5684 Sb- [n,g]
4662"5684 Os- [n,g]
4670"5181 Mn-55 [n,g]
4670"5181 Tl- [n,g]
4671 P-31 [n,g]
4671"5182 Co-59 [n,g]
4672"5694 Hf- [n,g]
4674"5696 K- [n,g]
4675 Hg-199 [n,g]
4677"5188 Cu-63 [n,g]
4678"5700 K- [n,g]
4681"5703 Ag-109 [n,g]
4683 Cl- [n,g]
4684"5195 Ga- [n,g]
4685 W- [n,g]
4687"5198 I-127 [n,g]
4688"5710 Au-197 [n,g]
4690 Al-27 [n,g]
4691"5713 Mo- [n,g]
4693"5715 Cl- [n,g]
4695"5206 Cl- [n,g]
4699"5210 V-51 [n,g]
4701"5723 Hf- [n,g]
4702"5213 Pd- [n,g]
4708"5730 Hg-199 [n,g]
4709"5731 Ba- [n,g]
4710 B- [n,g]
4711"5733 Cl- [n,g]
4720 Ag- [n,g]
4723 Fe-56 [n,g]
4723 Ba-138 [n,g]
4729 Cl- [n,g]
4729"5240 Ag- [n,g]
4730"5752 V-51 [n,g]
4731"5753 Cl- [n,g]
4734 Al-27 [n,g]
4735"5246 Cl- [n,g]
4739 Hg-199 [n,g]
4739"5761 Rb- [n,g]
4740 Nb-93 [n,g]
4742"5253 Nb-93 [n,g]
4742"5253 Cs- [n,g]
4743"5254 Mn-55 [n,g]
4744"5255 Pt-195 [n,g]
4750 Ca- [n,g]
4751"5262 W-186 [n,g]
4753 Cl- [n,g]
4753 Tl- [n,g]
4753"5264 Zr- [n,g]
4755"5266 Rh-103 [n,g]
4756"5267 N-14 [n,g]
4756"5778 Cl- [n,g]
4759 Hg-199 [n,g]
4761"5783 Ir- [n,g]
4763"5274 Os- [n,g]
4763"5785 As- [n,g]

4767'5278 Re- [n,g]
 4769'5280 Tl- [n,g]
 4771'5793 Ag-109 [n,g]
 4775 In- [n,g]
 4782 Ta-181 [n,g]
 4783 As- [n,g]
 4786'5297 N-14 [n,g]
 4795'5817 Ni-58 [n,g]
 4796'5307 Pt- [n,g]
 4796'5818 Ge-70 [n,g]
 4800'5311 Ni-58 [n,g]
 4802'5824 Cd-113 [n,g]
 4806'5828 Pd- [n,g]
 4808'5319 Cu-65 [n,g]
 4809'5320 W- [n,g]
 4810 Cd- [n,g]
 4810 Fe-56 [n,g]
 4813 Os- [n,g]
 4828'5339 Ga- [n,g]
 4830 Cl- [n,g]
 4832'5343 Ta-181 [n,g]
 4836'5347 Rh-103 [n,g]
 4840 Ga- [n,g]
 4860 Ir- [n,g]
 4861 Re- [n,g]
 4864'5886 Sb- [n,g]
 4866'5377 Cs- [n,g]
 4868'5890 Ca- [nn']
 4869'5380 K-39 [n,g]
 4870 S-32 [n,g]
 4870'5892 In- [n,g]
 4873'5895 Nb-93 [n,g]
 4877'5388 Hg-199 [n,g]
 4879'5901 Ca-40 [n,g]
 4881 Ti-48 [n,g]
 4881'5392 Sn- [n,g]
 4881'5903 Cl- [n,g]
 4881'5903 Gd- [n,g]
 4883 Cl- [n,g]
 4888'5910 Re- [n,g]
 4891'5913 Ge-76 [n,g]
 4892'5914 Br- [n,g]
 4895'5917 Rh-103 [n,g]
 4898'5920 Fe-56 [n,g]
 4905'5416 As- [n,g]
 4907'5418 Cu-63 [n,g]
 4909'5420 S-32 [n,g]
 4914 Tl- [n,g]
 4920'5431 Cd- [n,g]
 4924 Hg- [mis]
 4925'5436 Mn-55 [n,g]
 4934 Si-28 [n,g]
 4934'5956 Cl- [n,g]
 4936'5958 Be-9 [n,g]
 4936'5958 Ir- [n,g]
 4940'5451 Ge-70 [n,g]
 4941'5452 Mg- [n,g]
 4943 Ir- [n,g]
 4943'5965 Ta-181 [n,g]
 4945 C-12 [n,g]

4945#5967 Hg-199 [n,g]
 4949 0-16 [nn']
 4950 Fe-56 [n,g]
 4950 Mn-55 [n,g]
 4950 I-127 [n,g]
 4954 Hg-199 [n,g]
 4954#5976 Co-59 [n,g]
 4961#5983 Au-197 [n,g]
 4963#5474 Zn- [n,g]
 4967 Ti-48 [n,g]
 4969 In- [n,g]
 4976 Co-59 [n,g]
 4978#6000 Cr-53 [n,g]
 4980 Cl- [n,g]
 4982#5493 Fe-57 [n,g]
 4986#6008 Ga- [n,g]
 4986#6008 Se- [n,g]
 4988#6010 Cu- [n,g]
 4994#5505 Cs- [n,g]
 4995#5506 Hf- [n,g]
 4995#6017 Li- [n,g]
 4996#6018 F-19 [n,g]
 4997#5508 Br- [n,g]
 4997#6019 Fe-56 [n,g]
 5004#5515 Ca- [n,g]
 5004#5515 V-51 [n,g]
 5006#5517 Cl- [n,g]
 5006#6028 Ba- [n,g]
 5007#5518 Ge-72 [n,g]
 5008 Re- [n,g]
 5012#6034 Pt- [n,g]
 5015 Mn-55 [n,g]
 5015#6037 Ge-70 [n,g]
 5016#5527 Mn-55 [n,g]
 5017 Cl- [n,g]
 5020 Cs- [n,g]
 5021#5532 N-14 [n,g]
 5022#5533 Sm- [n,g]
 5023 Ru- [n,g]
 5024#6046 Rh-103 [n,g]
 5030#6052 Cs- [n,g]
 5033#6055 Sc-45 [n,g]
 5034#6056 Eu-107 [n,g]
 5036#6058 In- [n,g]
 5041#6063 Ac-181 [n,g]
 5042 Fe-57 [n,g]
 5044 Cu-65 [n,g]
 5047 S-32 [n,g]
 5049#5560 N-14 [n,g]
 5049#5560 I-127 [n,g]
 5050 Hg-199 [n,g]
 5051 Ge-76 [n,g]
 5052#5563 Sb- [n,g]
 5054#5565 Ir- [n,g]
 5055#5566 Hg-199 [n,g]
 5060#5571 Cs- [n,g]
 5060#6082 Np- [n,g]
 5061#6083 Rh-103 [n,g]
 5065#6087 Cl- [n,g]
 5067 Mn-55 [n,g]

5072'5583 Gd- [n,g]
 5074 Re- [n,g]
 5074'5585 Cl- [n,g]
 5079 Cl- [n,g]
 5080"6102 Sr- [n,g]
 5083"6105 Ni-58 [n,g]
 5089"6111 Ga- [n,g]
 5089"6111 Cl-35 [n,g]
 5090'5601 Ga- [n,g]
 5090"6112 Hf- [n,g]
 5091'5602 Mo- [n,g]
 5091'5602 Se- [n,g]
 5093'5604 Cl- [n,g]
 5093'5604 Tl- [n,g]
 5094 I-127 [n,g]
 5094"6116 Ge-70 [n,g]
 5098'5609 Bi-209 [mis]
 5100'5611 Pt- [n,g]
 5103 In- [n,g]
 5104 Nb-93 [n,g]
 5107 Si- [n,g]
 5108'5619 Cr-52 [n,g]
 5108"6130 O-16 [nn']
 5109'5620 Ca- [nn']
 5122"6144 W- [n,g]
 5126'5637 Cs- [n,g]
 5131'5642 Tl- [n,g]
 5137 Re- [n,g]
 5141 In- [n,g]
 5142 V-51 [n,g]
 5145"6167 Tl- [n,g]
 5147 Os- [n,g]
 5147'5658 Hg-199 [n,g]
 5148 Au-197 [n,g]
 5148"6170 Sc-45 [n,g]
 5149'5660 Co-59 [n,g]
 5150"6172 Rh-103 [n,g]
 5152 Cl- [n,g]
 5156'5667 Ir- [n,g]
 5157'5668 Te- [n,g]
 5164 W-186 [n,g]
 5169"6191 W-182 [n,g]
 5173 Pt- [n,g]
 5173'5684 Sb- [n,g]
 5173'5684 Os- [n,g]
 5181 Mn-55 [n,g]
 5181 Tl- [n,g]
 5182 Co-59 [n,g]
 5183'5694 Hf- [n,g]
 5185'5696 K- [n,g]
 5188 Cu-63 [n,g]
 5189'5700 K- [n,g]
 5189"6211 Rh- [n,g]
 5189"6211 Te- [n,g]
 5192'5703 Ag-109 [n,g]
 5195 Ga- [n,g]
 5198 I-127 [n,g]
 5199'5710 Au-197 [n,g]
 5202'5713 Mo- [n,g]
 5204'5715 Cl- [n,g]

5206 Cl- [n,g]
 5210 V-51 [n,g]
 5211#6233 Se- [n,g]
 5212#5723 Hf- [n,g]
 5213 Pd- [n,g]
 5219#5730 Hg-199 [n,g]
 5220#5731 Ba- [n,g]
 5222#5733 Cl- [n,g]
 5230#6252 Au-197 [n,g]
 5240 Ag- [n,g]
 5241#5752 V-51 [n,g]
 5242#5753 Cl- [n,g]
 5245#6267 Sr- [n,g]
 5246 Cl- [n,g]
 5246#6268 Cl- [n,g]
 5246#6268 Sn- [n,g]
 5250#5761 Rb- [n,g]
 5253 Nb-93 [n,g]
 5253 Cs- [n,g]
 5254 Mn-55 [n,g]
 5255 Pt-195 [n,g]
 5262 W-186 [n,g]
 5263#6285 Fe-56 [n,g]
 5264 Zr- [n,g]
 5266 Rh-103 [n,g]
 5267 N-14 [n,g]
 5267#5778 Cl- [n,g]
 5272#5783 Ir- [n,g]
 5273#6295 As-75 [n,g]
 5274 Os- [n,g]
 5274#5785 As- [n,g]
 5278 Re- [n,g]
 5280 Tl- [n,g]
 5282#5793 Ag-109 [n,g]
 5285#6307 I-127 [n,g]
 5288#6310 Hg-199 [n,g]
 5297 N-14 [n,g]
 5297#6319 Au-197 [n,g]
 5300#6322 N-14 [n,g]
 5301#6323 Te- [n,g]
 5306#5817 Ni-58 [n,g]
 5307 Pt- [n,g]
 5307#5818 Ge-70 [n,g]
 5311 Ni-58 [n,g]
 5313#5824 Cd-113 [n,g]
 5317#5828 Pd- [n,g]
 5318#6340 Cl- [n,g]
 5319 Cu-65 [n,g]
 5320 W- [n,g]
 5320#6342 Ru- [n,g]
 5333#6355 Br- [n,g]
 5338#6360 Ga- [n,g]
 5339 Ga- [n,g]
 5343 Ta-181 [n,g]
 5343#6365 Mo- [n,g]
 5347 Rh-103 [n,g]
 5354#6376 Cl- [n,g]
 5358#6380 Si- [n,g]
 5358#6380 Sb- [n,g]
 5361#6383 Si- [n,g]

5367"6389 Ge-72 [n,g]
 5371"6393 Cu-65 [n,g]
 5373"6395 Na-23 [n,g]
 5375"5886 Sb- [n,g]
 5376"6398 Hg-199 [n,g]
 5377 Cs- [n,g]
 5379"5890 Ca- [nn']
 5380 K-39 [n,g]
 5381"5892 In- [n,g]
 5384"5895 Nb-93 [n,g]
 5388 Hg-199 [n,g]
 5390"5901 Ca-40 [n,g]
 5392 Sn- [n,g]
 5392"5903 Cl- [n,g]
 5392"5903 Gd- [n,g]
 5396"6418 Ti-48 [n,g]
 5398"6420 Ca-40 [n,g]
 5399"5910 Re- [n,g]
 5400"6422 Cl- [n,g]
 5402"5913 Ge-76 [n,g]
 5403"5914 Br- [n,g]
 5406"5917 Rh-103 [n,g]
 5409"5920 Fe-56 [n,g]
 5416 As- [n,g]
 5418 Cu-63 [n,g]
 5420 S-32 [n,g]
 5431 Cd- [n,g]
 5435"6457 Au-197 [n,g]
 5436 Mn-55 [n,g]
 5436"6458 Hg-199 [n,g]
 5443"6465 V-51 [n,g]
 5445"5956 Cl- [n,g]
 5446"6468 Sb- [n,g]
 5447"5958 Be-9 [n,g]
 5447"5958 Ir- [n,g]
 5449"6471 Rb- [n,g]
 5451 Ge-70 [n,g]
 5452 Mg- [n,g]
 5454"5965 Ta-181 [n,g]
 5456"5967 Hg-199 [n,g]
 5464"6486 Co-59 [n,g]
 5465"5976 Co-59 [n,g]
 5465"6487 Cl- [n,g]
 5472"5983 Au-197 [n,g]
 5474 Zn- [n,g]
 5489"6000 Cr-53 [n,g]
 5490"6512 Au-197 [n,g]
 5493 Fe-57 [n,g]
 5493"6515 Tl- [n,g]
 5495"6517 V-51 [n,g]
 5497"6008 Ga- [n,g]
 5497"6008 Se- [n,g]
 5498"6520 Rb- [n,g]
 5499"6010 Cu- [n,g]
 5502"6524 Sb-121 [n,g]
 5505 Cs- [n,g]
 5506 Hf- [n,g]
 5506"6017 Li- [n,g]
 5507"6018 F-19 [n,g]
 5508 Br- [n,g]

5508'6019 Fe-56 [n,g]
 5515 Ca- [n,g]
 5515 V-51 [n,g]
 5517 Cl- [n,g]
 5517'6028 Ba- [n,g]
 5518 Ge-72 [n,g]
 5518"6540 Ag-109 [n,g]
 5523'6034 Pt- [n,g]
 5526'6037 Ge-70 [n,g]
 5527 Mn-55 [n,g]
 5532 N-14 [n,g]
 5533 Sm- [n,g]
 5534"6556 Ti-48 [n,g]
 5535'6046 Rh-103 [n,g]
 5538"6560 Ca- [nn']
 5541'6052 Cs- [n,g]
 5544'6055 Sc-45 [n,g]
 5545'6056 Eu-107 [n,g]
 5547'6058 In- [n,g]
 5552'6063 Ac-181 [n,g]
 5557"6579 Ni-58 [n,g]
 5560 N-14 [n,g]
 5560 I-127 [n,g]
 5563 Sb- [n,g]
 5565 Ir- [n,g]
 5565"6587 Os- [n,g]
 5566 Hg-199 [n,g]
 5571 Cs- [n,g]
 5571'6082 Np- [n,g]
 5572'6083 Rh-103 [n,g]
 5576'6087 Cl- [n,g]
 5577"6599 Cu-65 [n,g]
 5579"6601 F-19 [n,g]
 5583 Gd- [n,g]
 5583"6605 Cd-113 [n,g]
 5585 Cl- [n,g]
 5591'6102 Sr- [n,g]
 5594'6105 Ni-58 [n,g]
 5598"6620 Cl-35 [n,g]
 5600'6111 Ga- [n,g]
 5600'6111 Cl-35 [n,g]
 5601 Ga- [n,g]
 5601'6112 Hf- [n,g]
 5602 Mo- [n,g]
 5602 Se- [n,g]
 5603"6625 Mo- [n,g]
 5604 Cl- [n,g]
 5604 Tl- [n,g]
 5605'6116 Ge-70 [n,g]
 5608"6630 Cl- [n,g]
 5609 Bi-209 [mis]
 5611 Pt- [n,g]
 5619 Cr-52 [n,g]
 5619'6130 O-16 [nn']
 5620 Ca- [nn']
 5624"6646 Cr-53 [n,g]
 5631"6653 Pd- [n,g]
 5633'6144 W- [n,g]
 5637 Cs- [n,g]
 5639"6661 Sr- [n,g]

5642 Tl- [n,g]
 5656/6167 Tl- [n,g]
 5656/6678 Cu-65 [n,g]
 5658 Hg-199 [n,g]
 5659/6170 Sc-45 [n,g]
 5660 Co-59 [n,g]
 5660/6682 Cl- [n,g]
 5661/6172 Rh-103 [n,g]
 5667 Ir- [n,g]
 5668 Te- [n,g]
 5671/6693 I-127 [n,g]
 5680/6191 W-182 [n,g]
 5684 Sb- [n,g]
 5684 Os- [n,g]
 5684/6706 Co-59 [n,g]
 5686/6708 Ge-70 [n,g]
 5694 Hf- [n,g]
 5696 K- [n,g]
 5700 K- [n,g]
 5700/6211 Rh- [n,g]
 5700/6211 Te- [n,g]
 5703 Ag-109 [n,g]
 5706/6728 Sb- [n,g]
 5710 Au-197 [n,g]
 5713 Mo- [n,g]
 5714/6736 Pb- [n,g]
 5715 Cl- [n,g]
 5716/6738 Co-59 [n,g]
 5722/6233 Se- [n,g]
 5723 Hf- [n,g]
 5723/6745 Br- [n,g]
 5730 Hg-199 [n,g]
 5731 Ba- [n,g]
 5733 Cl- [n,g]
 5733/6755 Ti- [n,g]
 5737/6759 B- [n,g]
 5738/6760 Ti-48 [n,g]
 5741/6252 Au-197 [n,g]
 5752 V-51 [n,g]
 5753 Cl- [n,g]
 5756/6267 Sr- [n,g]
 5757/6268 Cl- [n,g]
 5757/6268 Sn- [n,g]
 5761 Rb- [n,g]
 5762/6784 Mn-55 [n,g]
 5763/6785 P-31 [n,g]
 5774/6285 Fe-56 [n,g]
 5778 Cl- [n,g]
 5783 Ir- [n,g]
 5784/6295 As-75 [n,g]
 5785 As- [n,g]
 5787/6809 Be-9 [n,g]
 5788/6810 As- [n,g]
 5793 Ag-109 [n,g]
 5796/6307 I-127 [n,g]
 5799/6310 Hg-199 [n,g]
 5801/6823 Cd-113 [n,g]
 5808/6319 Au-197 [n,g]
 5809/6831 Rb- [n,g]
 5809/6831 Nb-93 [n,g]

5811'6322 N-14 [n,g]
 5812'6323 Te- [n,g]
 5815"6837 Ni-63 [n,g]
 5817 Ni-58 [n,g]
 5817"6839 Sc-45 [n,g]
 5818 Ge-70 [n,g]
 5824 Cd-113 [n,g]
 5828 Pd- [n,g]
 5829'6340 Cl- [n,g]
 5831'6342 Ru- [n,g]
 5844'6355 Br- [n,g]
 5846"6868 Zn- [n,g]
 5849'6360 Ga- [n,g]
 5852"6874 V-51 [n,g]
 5854'6365 Mo- [n,g]
 5855"6877 Co-59 [n,g]
 5856"6878 Si- [nn']
 5863"6885 Sr- [n,g]
 5865'6376 Cl- [n,g]
 5868"6890 Cr- [n,g]
 5869'6380 Si- [n,g]
 5869'6380 Sb- [n,g]
 5872'6383 Si- [n,g]
 5878'6389 Ge-72 [n,g]
 5882'6393 Cu-65 [n,g]
 5884'6395 Na-23 [n,g]
 5886 Sb- [n,g]
 5887'6398 Hg-199 [n,g]
 5888"6910 Zn- [n,g]
 5890 Ca- [nn']
 5892 In- [n,g]
 5894"6916 Ge-70 [n,g]
 5895 Nb-93 [n,g]
 5895"6917 O-16 [nn']
 5897"6919 Mo-95 [n,g]
 5901 Ca-40 [n,g]
 5903 Cl- [n,g]
 5903 Gd- [n,g]
 5904"6926 As- [n,g]
 5907"6929 Mn-55 [n,g]
 5907'6418 Ti-48 [n,g]
 5909'6420 Ca-40 [n,g]
 5910 Re- [n,g]
 5911'6422 Cl- [n,g]
 5913 Ge-76 [n,g]
 5914 Br- [n,g]
 5915"6937 Fe-56 [n,g]
 5917 Rh-103 [n,g]
 5920 Fe-56 [n,g]
 5920"6942 Sr- [n,g]
 5926"6948 Co-59 [n,g]
 5935"6957 Fe-57 [n,g]
 5936"6958 Zn- [n,g]
 5946'6457 Au-197 [n,g]
 5947'6458 Hg-199 [n,g]
 5954'6465 V-51 [n,g]
 5956 Cl- [n,g]
 5956"6978 Cl- [n,g]
 5957'6468 Sb- [n,g]
 5958 Be-9 [n,g]

5958 Ir- [n,g]
 5960'6471 Rb- [n,g]
 5963'6985 Co-59 [n,g]
 5965 Ta-181 [n,g]
 5966'6988 Cu- [n,g]
 5967 Hg-199 [n,g]
 5975'6486 Co-59 [n,g]
 5976 Co-59 [n,g]
 5976'6487 Cl- [n,g]
 5977'6999 K- [n,g]
 5981'7003 Ga- [n,g]
 5983 Au-197 [n,g]
 5983'7005 B- [n,g]
 5997'7019 As- [n,g]
 6000 Cr-53 [n,g]
 6001'6512 Au-197 [n,g]
 6004'6515 Tl- [n,g]
 6006'6517 V-51 [n,g]
 6008 Ga- [n,g]
 6008 Se- [n,g]
 6008'7030 Br- [n,g]
 6009'6520 Rb- [n,g]
 6010 Cu- [n,g]
 6013'6524 Sb-121 [n,g]
 6017 Li- [n,g]
 6018 F-19 [n,g]
 6019 Fe-56 [n,g]
 6028 Ba- [n,g]
 6029'6540 Ag-109 [n,g]
 6034 Pt- [n,g]
 6034'7056 Co-59 [n,g]
 6036'7058 Mn-55 [n,g]
 6037 Ge-70 [n,g]
 6045'6556 Ti-48 [n,g]
 6046 Rh-103 [n,g]
 6047'7069 Zn- [n,g]
 6049'6560 Ca- [nn']
 6052 Cs- [n,g]
 6054'7076 Ag- [n,g]
 6054'7076 Br- [n,g]
 6055 Sc-45 [n,g]
 6056 Eu-107 [n,g]
 6058 In- [n,g]
 6063 Ac-181 [n,g]
 6068'6579 Ni-58 [n,g]
 6076'6587 Os- [n,g]
 6077'7099 Cr-53 [n,g]
 6081'7103 Ru- [n,g]
 6082 Np- [n,g]
 6083 Rn-103 [n,g]
 6087 Cl- [n,g]
 6088'6599 Cu-65 [n,g]
 6090'6601 F-19 [n,g]
 6090'7112 Zn- [n,g]
 6094'6605 Cd-113 [n,g]
 6095'7117 Sc-45 [n,g]
 6095'7117 O-16 [nn']
 6102 Sr- [n,g]
 6105 Ni-58 [n,g]
 6109'6620 Cl-35 [n,g]

0111 Ga- [n,g]
 0111 Cl-35 [n,g]
 0112 Hf- [n,g]
 0114'0625 Mo- [n,g]
 0116 Ge-70 [n,g]
 0119'0630 Cl- [n,g]
 0127"7149 Ti-47 [n,g]
 0130 O-16 [nn']
 0135'0640 Cr-53 [n,g]
 0138"7160 Mn-55 [n,g]
 0141"7163 V-51 [n,g]
 0142'0653 Pd- [n,g]
 0144 W- [n,g]
 0150'0661 Sr- [n,g]
 0154"7176 Cu-63 [n,g]
 0158"7180 Se- [n,g]
 0164"7186 Nb-93 [n,g]
 0167 Tl- [n,g]
 0167'0678 Cu-65 [n,g]
 0167"7189 Zn- [n,g]
 0170 Sc-45 [n,g]
 0171'0682 Cl- [n,g]
 0172 Rh-103 [n,g]
 0177"7199 Si- [n,g]
 0182'0693 I-127 [n,g]
 0191 W-182 [n,g]
 0191"7213 Sm- [n,g]
 0192"7214 Co-59 [n,g]
 0195'0706 Co-59 [n,g]
 0197'0708 Ge-70 [n,g]
 0211 Rh- [n,g]
 0211 Te- [n,g]
 0217'0728 Sb- [n,g]
 0221"7243 Mn-55 [n,g]
 0225'0736 Pb- [n,g]
 0225"7247 Li- [n,g]
 0227'0738 Co-59 [n,g]
 0230"7252 Cu-63 [n,g]
 0233 Se- [n,g]
 0234'0745 Br- [n,g]
 0240"7262 Ge-73 [n,g]
 0240"7262 Fe-57 [n,g]
 0244'0755 Ti- [n,g]
 0245"7267 Ag-107 [n,g]
 0248'0759 B- [n,g]
 0249'0760 Ti-48 [n,g]
 0249"7271 Mn-55 [n,g]
 0252 Au-197 [n,g]
 0257"7279 Fe-56 [n,g]
 0260"7282 Cl- [n,g]
 0267 Sr- [n,g]
 0268 Cl- [n,g]
 0268 Sn- [n,g]
 0269"7291 V-51 [n,g]
 0273'0784 Mn-55 [n,g]
 0274'0785 P-31 [n,g]
 0277"7299 N-14 [n,g]
 0284"7306 Cu-63 [n,g]
 0285 Fe-56 [n,g]
 0288"7310 V-51 [n,g]

6295 As-75 [n,g]
 6298'6809 Be-9 [n,g]
 6299'6810 As- [n,g]
 6303"7325 Ti-46 [n,g]
 6307 I-127 [n,g]
 6310 Hg-199 [n,g]
 6312'6823 Cd-113 [n,g]
 6319 Au-197 [n,g]
 6320'6831 Rb- [n,g]
 6320'6831 Nb-93 [n,g]
 6322 N-14 [n,g]
 6323 Te- [n,g]
 6326'6837 Ni-63 [n,g]
 6328'6839 Sc-45 [n,g]
 6340 Cl- [n,g]
 6340"7362 Cr-50 [n,g]
 6342 Ru- [n,g]
 6344"7366 Cr- [n,g]
 6346"7368 Pb-207 [n,g]
 6353"7375 Cr-52 [n,g]
 6355 Br- [n,g]
 6357'6868 Zn- [n,g]
 6360 Ga- [n,g]
 6363'6874 V-51 [n,g]
 6365 Mo- [n,g]
 6366'6877 Co-59 [n,g]
 6367'6878 Si- [nn']
 6374'6885 Sr- [n,g]
 6376 Cl- [n,g]
 6379'6890 Cr- [n,g]
 6380 Si- [n,g]
 6380 Sb- [n,g]
 6383 Si- [n,g]
 6389 Ge-72 [n,g]
 6392"7414 N-14 [n,g]
 6392"7414 Cl-35 [n,g]
 6393 Cu-65 [n,g]
 6395 Na-23 [n,g]
 6397"7419 Se- [n,g]
 6398 Hg-199 [n,g]
 6399'6910 Zn- [n,g]
 6399"7421 Br- [n,g]
 6399"7421 P-31 [n,g]
 6405'6916 Ge-70 [n,g]
 6406'6917 O-16 [nn']
 6408'6919 Mo-95 [n,g]
 6415'6926 As- [n,g]
 6418'6929 Mn-55 [n,g]
 6418 Ti-48 [n,g]
 6420 Ca-40 [n,g]
 6422 Cl- [n,g]
 6426'6937 Fe-56 [n,g]
 6431'6942 Sr- [n,g]
 6437'6948 Co-59 [n,g]
 6446'6957 Fe-57 [n,g]
 6447'6958 Zn- [n,g]
 6454"7476 Cl- [n,g]
 6457 Au-197 [n,g]
 6458 Hg-199 [n,g]
 6465 V-51 [n,g]

6467'6978 Cl- [n,g]
 6468 Sb- [n,g]
 6469"7491 Co-59 [n,g]
 6471 Rb- [n,g]
 6474'6985 Co-59 [n,g]
 6477'6988 Cu- [n,g]
 6485"7507 Fe-56 [n,g]
 6486 Co-59 [n,g]
 6487 Cl- [n,g]
 6488'6999 K- [n,g]
 6492'7003 Ga- [n,g]
 6494'7005 B- [n,g]
 6505"7527 Mo- [n,g]
 6506"7528 Sr- [n,g]
 6508'7019 As- [n,g]
 6512 Au-197 [n,g]
 6514"7536 Ni-60 [n,g]
 6515 Tl- [n,g]
 6517 V-51 [n,g]
 6519'7030 Br- [n,g]
 6520 Rb- [n,g]
 6524 Sb-121 [n,g]
 6540 Ag-109 [n,g]
 6540"7562 Cl- [n,g]
 6545'7056 Co-59 [n,g]
 6547'7058 Mn-55 [n,g]
 6549"7571 Cu-63 [n,g]
 6554"7576 Br- [n,g]
 6556 Ti-48 [n,g]
 6558'7069 Zn- [n,g]
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 6565'7076 Ag- [n,g]
 6565'7076 Br- [n,g]
 6579 Ni-58 [n,g]
 6587 Os- [n,g]
 6588'7099 Cr-53 [n,g]
 6592'7103 Ru- [n,g]
 6599 Cu-65 [n,g]
 6601 F-19 [n,g]
 6601'7112 Zn- [n,g]
 6602"7624 Rb- [n,g]
 6605 Cd-113 [n,g]
 6606'7117 Sc-45 [n,g]
 6606'7117 O-16 [nn']
 6610"7632 Fe-56 [n,g]
 6614"7636 Sc-45 [n,g]
 6615"7637 Cu-63 [n,g]
 6620 Cl-35 [n,g]
 6624"7646 Fe-56 [n,g]
 6625 Mo- [n,g]
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 6652'7163 V-51 [n,g]
 6653 Pd- [n,g]
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 6661 Sr- [n,g]
 6665'7176 Cu-63 [n,g]

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 6672⁷7694 Al-27 [n,g]
 6675⁷7186 Nb-93 [n,g]
 6675⁷7697 Ni- [n,g]
 6678 Cu-65 [n,g]
 6678⁷7189 Zn- [n,g]
 6682 Cl- [n,g]
 6688⁷7199 Si- [n,g]
 6693 I-127 [n,g]
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 6702⁷7724 Al-27 [n,g]
 6703⁷7214 Co-59 [n,g]
 6706 Co-59 [n,g]
 6708 Ge-70 [n,g]
 6712⁷7734 Se-74 [n,g]
 6713⁷7735 Cd-113 [n,g]
 6728 Sb- [n,g]
 6732⁷7243 Mn-55 [n,g]
 6733⁷7755 Cu-63 [n,g]
 6736 Po- [n,g]
 6736⁷7247 Li- [n,g]
 6736 Co-59 [n,g]
 6741⁷7252 Cu-63 [n,g]
 6745 Br- [n,g]
 6747⁷7769 K- [n,g]
 6751⁷7262 Ge-73 [n,g]
 6751⁷7262 Fe-57 [n,g]
 6755 Ti- [n,g]
 6756⁷7267 Ag-107 [n,g]
 6759 B- [n,g]
 6760 Ti-48 [n,g]
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 6768⁷7279 Fe-56 [n,g]
 6768⁷7790 Cl-35 [n,g]
 6771⁷7282 Cl- [n,g]
 6778⁷7800 S-32 [n,g]
 6780⁷7291 V-51 [n,g]
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 6841⁷7863 Zn-64 [n,g]
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 6855⁷7366 Cr- [n,g]
 6857⁷7368 Pb-207 [n,g]
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 6868 Zn- [n,g]

6874 V-51 [n,g]
 6877 Co-59 [n,g]
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 6890 Cr- [n,g]
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 6903'7414 N-14 [n,g]
 6903'7414 Cl-35 [n,g]
 6908'7419 Se- [n,g]
 6910 Zn- [n,g]
 6910'7421 Br- [n,g]
 6910'7421 P-31 [n,g]
 6916 Ge-70 [n,g]
 6917 O-16 [nn']
 6917"7939 Cr-52 [n,g]
 6919 Mo-95 [n,g]
 6926 As- [n,g]
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 6988 Cu- [n,g]
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 6999 K- [n,g]
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 7103 Ru- [n,g]
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 7262 Ge-73 [n,g]
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7527 Mo- [n,g]
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7576 Br- [n,g]
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