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1-Hydrogen		15-Phosphorus		27-Cobalt	
H-3	62	P-31	82	Co-59	115
2-Helium		16-Sulfur		Co-60	120
He-3	62	S-32	83	28-Nickel	
He-4	62	S-33	83	Ni-58	121
3-Lithium		S-34	83	Ni-59	121
Li-6	63	17-Chlorine		Ni-60	121
Li-7	63	Cl-35	84	Ni-61	122
4-Beryllium		Cl-36	90	Ni-62	126
Be-7	64	Cl-37	91	Ni-64	127
Be-8	64	18-Argon		29-Copper	
Be-9	64	Ar-36	95	Cu-63	128
5-Boron		Ar-37	95	Cu-65	129
B-10	65	Ar-40	95	30-Zinc	
B-11	65	19-Potassium		Zn-64	130
6-Carbon		K-39	96	Zn-66	130
C-12	66	K-40	96	Zn-67	130
C-13	66	K-41	96	Zn-68	131
C-14	66	20-Calcium		Zn-70	131
7-Nitrogen		Ca-40	97	31-Gallium	
N-14	67	Ca-41	97	Ga-69	132
N-15	68	Ca-42	97	Ga-71	132
8-Oxygen		Ca-43	98	32-Germanium	
O-16	69	Ca-44	98	Ge-70	133
O-17	71	Ca-46	98	Ge-72	133
O-18	71	Ca-48	98	Ge-73	134
9-Fluorine		21-Scandium		Ge-74	134
F-19	72	Sc-45	99	Ge-76	134
10-Neon		22-Titanium		33-Arsenic	
Ne-20	73	Ti-46	100	As-75	135
Ne-21	73	Ti-47	100	34-Selenium	
Ne-22	73	Ti-48	100	Se-74	136
11-Sodium		Ti-49	101	Se-76	136
Na-22	74	Ti-50	101	Se-77	136
Na-23	74	23-Vanadium		Se-78	137
12-Magnesium		V-50	102	Se-80	137
Mg-24	75	V-51	102	Se-82	137
Mg-25	75	24-Chromium		35-Bromine	
Mg-26	76	Cr-50	103	Br-79	138
13-Aluminium		Cr-52	103	Br-81	139
Al-26	77	Cr-53	103	36-Krypton	
Al-27	77	Cr-54	104	Kr-78	140
14-Silicon		25-Manganese		Kr-80	140
Si-28	78	Mn-55	112	Kr-82	140
Si-29	79	26-Iron		Kr-83	141
Si-30	80	Fe-54	113	Kr-84	141
		Fe-56	113	Kr-86	141
		Fe-57	113		
		Fe-58	114		

37-Rubidium	47-Silver	54-Xenon
Rb-85 142	Ag-107 175	Xe-124 213
Rb-87 143	Ag-109 175	Xe-126 213
38-Strontium	Ag-110 175	Xe-128 213
Sr-84 144	48-Cadmium	Xe-129 214
Sr-86 144	Cd-106 176	Xe-130 215
Sr-87 144	Cd-108 176	Xe-131 216
Sr-88 145	Cd-110 176	Xe-132 217
39-Yttrium	Cd-111 177	Xe-134 217
Y-89 145	Cd-112 177	Xe-135 217
40-Zirconium	Cd-113 177	Xe-136 217
Zr-90 146	Cd-114 178	55-Caesium
Zr-91 147	Cd-116 178	Cs-133 218
Zr-92 151	49-Indium	Cs-134 225
Zr-93 152	In-113 178	Cs-135 225
Zr-94 152	In-115 179	56-Barium
Zr-96 153	50-Tin	Ba-130 226
41-Niobium	Sn-112 179	Ba-132 226
Nb-93 154	Sn-113 179	Ba-133 226
Nb-94 154	Sn-114 180	Ba-134 227
42-Molybdenum	Sn-115 180	Ba-135 227
Mo-92 155	Sn-116 180	Ba-136 230
Mo-94 155	Sn-117 181	Ba-137 230
Mo-95 156	Sn-118 181	Ba-138 230
Mo-96 158	Sn-119 181	57-Lanthanum
Mo-97 160	Sn-120 182	La-138 231
Mo-98 162	Sn-122 182	La-139 231
Mo-100 166	Sn-124 182	58-Cerium
43-Technetium	51-Antimony	Ce-136 234
Tc-99 169	Sb-121 183	Ce-140 234
44-Ruthenium	Sb-123 183	Ce-141 234
Ru-99 170	52-Tellurium	Ce-142 234
Ru-100 170	Te-122 184	59-Praseodymium
Ru-101 170	Te-123 184	Pr-141 235
Ru-102 171	Te-124 185	Pr-143 235
Ru-103 171	Te-125 185	60-Neodymium
Ru-104 171	Te-126 185	Nd-142 236
45-Rhodium	Te-128 186	Nd-143 238
Rh-103 172	Te-130 186	Nd-144 239
46-Palladium	53-Iodine	Nd-145 241
Pd-102 173	I-127 187	Nd-146 242
Pd-104 173	I-129 203	Nd-147 242
Pd-105 173		Nd-148 243
Pd-106 174		Nd-150 243
Pd-107 174		61-Promethium
Pd-108 174		Pm-147 244
Pd-110 174		Pm-148 244

62-Samarium		70-Ytterbium		78-Platinum	
Sm-144	245	Yb-168	281	Pt-192	303
Sm-147	248	Yb-169	281	Pt-194	306
Sm-148	251	Yb-170	281	Pt-195	307
Sm-149	252	Yb-171	282	Pt-196	307
Sm-150	253	Yb-172	282	Pt-198	307
Sm-151	253	Yb-173	283		
Sm-152	265	Yb-174	283	79-Gold	
Sm-154	265	Yb-176	284	Au-197	308
63-Europium		71-Lutetium		80-Mercury	
Eu-151	266	Lu-175	284	Hg-198	314
Eu-152	266	Lu-176	284	Hg-199	314
Eu-153	267	72-Hafnium		Hg-200	314
Eu-154	267	Hf-174	285	Hg-201	315
Eu-155	267	Hf-176	285	Hg-202	315
64-Gadolinium		Hf-177	286	Hg-204	315
Gd-152	268	Hf-178	289	81-Thallium	
Gd-153	268	Hf-179	289	Tl-203	316
Gd-154	269	Hf-180	291	Tl-204	316
Gd-155	269	73-Tantalum		Tl-205	316
Gd-156	272	Ta-180	295	82-Lead	
Gd-157	272	Ta-181	295	Pb-204	317
Gd-158	274	Ta-182	295	Pb-206	329
Gd-160	274	74-Tungsten		Pb-207	337
65-Terbium		W-180	296	Pb-208	338
Tb-159	274	W-181	296	83-Bismuth	
Tb-160	275	W-182	296	Bi-209	339
66-Dysprosium		W-183	297	88-Radium	
Dy-156	275	W-184	297	Ra-226	340
Dy-158	275	W-185	298	90-Thorium	
Dy-160	276	W-186	298	Th-228	340
Dy-161	276	75-Rhenium		Th-229	340
Dy-162	276	Re-185	299	Th-230	340
Dy-163	277	Re-186	299	Th-232	341
Dy-164	277	Re-187	299	91-Protactinium	
67-Holmium		76-Osmium		Pa-231	362
Ho-165	278	Os-186	300	Pa-232	362
Ho-166	278	Os-187	300	Pa-233	362
68-Erbium		Os-188	300	92-Uranium	
Er-162	278	Os-189	301	U-232	365
Er-164	279	Os-190	301	U-233	365
Er-166	279	Os-192	301	U-234	365
Er-167	279	77-Iridium		U-235	366
Er-168	280	Ir-191	302	U-236	366
Er-170	280	Ir-192	302	U-237	367
69-Thulium		Ir-193	302	U-238	367
Tm-169	280			93-Neptunium	
Tm-170	280			Np-236	441
Tm-171	280			Np-237	441
				Np-238	441

94-Plutonium	96-Curium	98-Californium
Pu-236 442	Cm-242 447	Cf-249 449
Pu-238 442	Cm-243 447	Cf-250 449
Pu-239 442	Cm-244 447	Cf-251 450
Pu-240 443	Cm-245 447	Cf-252 450
Pu-241 443	Cm-246 448	
Pu-242 444	Cm-247 448	
Pu-244 444	Cm-248 448	
95-Americium	97-Berkelium	
Am-241 445	Bk-249 449	
Am-242 446		
Am-243 446		
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