

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

1																	2							
1	H 1.008 Hydrogen																	He 4.002602 Helium						
2	3	4																	5	6	7	8	9	10
	Li 6.94 Lithium	Be 9.0121831 Beryllium																	B 10.81 Boron	C 12.011 Carbon	N 14.007 Nitrogen	O 15.999 Oxygen	F 18.998403163 Fluorine	Ne 20.1797 Neon
3	11	12																	13	14	15	16	17	18
	Na 22.98976928 Sodium	Mg 24.305 Magnesium																	Al 26.9815385 Aluminium	Si 28.085 Silicon	P 30.973761998 Phosphorus	S 32.06 Sulfur	Cl 35.45 Chlorine	Ar 39.948 Argon
4	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36						
	K 39.0983 Potassium	Ca 40.078 Calcium	Sc 44.955908 Scandium	Ti 47.867 Titanium	V 50.9415 Vanadium	Cr 51.9961 Chromium	Mn 54.938044 Manganese	Fe 55.845 Iron	Co 58.933194 Cobalt	Ni 58.6934 Nickel	Cu 63.546 Copper	Zn 65.38 Zinc	Ga 69.723 Gallium	Ge 72.630 Germanium	As 74.921595 Arsenic	Se 78.971 Selenium	Br 79.904 Bromine	Kr 83.798 Krypton						
5	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54						
	Rb 85.4678 Rubidium	Sr 87.62 Strontium	Y 88.90584 Yttrium	Zr 91.224 Zirconium	Nb 92.90637 Niobium	Mo 95.95 Molybdenum	Tc 98 Technetium	Ru 101.07 Ruthenium	Rh 102.90550 Rhodium	Pd 106.42 Palladium	Ag 107.8682 Silver	Cd 112.414 Cadmium	In 114.818 Indium	Sn 118.710 Tin	Sb 121.760 Antimony	Te 127.60 Tellurium	I 126.90447 Iodine	Xe 131.293 Xenon						
6	55	56	57	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86						
	Cs 132.90545196 Caesium	Ba 137.327 Barium	La 138.9 Lanthanum	Hf 178.49 Hafnium	Ta 180.94788 Tantalum	W 183.84 Tungsten	Re 186.207 Rhenium	Os 190.23 Osmium	Ir 192.217 Iridium	Pt 195.084 Platinum	Au 196.966569 Gold	Hg 200.592 Mercury	Tl 204.38 Thallium	Pb 207.2 Lead	Bi 208.98040 Bismuth	Po 209 Polonium	At 210 Astatine	Rn 222 Radon						
7	87	88	89	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118						
	Fr 223 Francium	Ra 226 Radium	Ac Actinium	Rf 267 Rutherfordium	Db 268 Dubnium	Sg 269 Seaborgium	Bh 270 Bohrium	Hs 269 Hassium	Mt 278 Meitnerium	Ds 281 Darmstadtium	Rg 281 Roentgenium	Cn 285 Copernicium	Uut 286 Ununtrium	Fl 289 Flerovium	Uup 289 Ununpentium	Lv 293 Livermorium	Uus 294 Ununseptium	Uuo 294 Ununoctium						

RARE EARTH ELEMENTS

58	59	60	61	62	63	64	65	66	67	68	69	70	71
Ce 140.116 Cerium	Pr 140.90766 Praseodymium	Nd 144.242 Neodymium	Pm 145 Promethium	Sm 150.36 Samarium	Eu 151.964 Europium	Gd 157.25 Gadolinium	Tb 158.92535 Terbium	Dy 162.500 Dysprosium	Ho 164.93033 Holmium	Er 167.259 Erbium	Tm 168.93422 Thulium	Yb 173.054 Ytterbium	Lu 174.9668 Lutetium

90	91	92	93	94	95	96	97	98	99	100	101	102	103
Th 232.0377 Thorium	Pa 231.03588 Protactinium	U 238.02891 Uranium	Np 237 Neptunium	Pu 244 Plutonium	Am 243 Americium	Cm 247 Curium	Bk 247 Berkelium	Cf 251 Californium	Es 252 Einsteinium	Fm 257 Fermium	Md 258 Mendelevium	No 259 Nobelium	Lr 266 Lawrencium