

# Los Alamos National Laboratory Chemistry Division

## Periodic Table of the Elements

1A 1 <b>H</b> hydrogen 1.008																	8A 2 <b>He</b> helium 4.003						
3 <b>Li</b> lithium 6.94	2A 4 <b>Be</b> beryllium 9.012																	3A 5 <b>B</b> boron 10.81	4A 6 <b>C</b> carbon 12.01	5A 7 <b>N</b> nitrogen 14.01	6A 8 <b>O</b> oxygen 16.00	7A 9 <b>F</b> fluorine 19.00	10 <b>Ne</b> neon 20.18
11 <b>Na</b> sodium 22.99	12 <b>Mg</b> magnesium 24.31	3B	4B	5B	6B	7B	8B		11B	12B	13 <b>Al</b> aluminum 26.98	14 <b>Si</b> silicon 28.09	15 <b>P</b> phosphorus 30.97	16 <b>S</b> sulfur 32.06	17 <b>Cl</b> chlorine 35.45	18 <b>Ar</b> argon 39.95							
19 <b>K</b> potassium 39.10	20 <b>Ca</b> calcium 40.08	21 <b>Sc</b> scandium 44.96	22 <b>Ti</b> titanium 47.88	23 <b>V</b> vanadium 50.94	24 <b>Cr</b> chromium 52.00	25 <b>Mn</b> manganese 54.94	26 <b>Fe</b> iron 55.85	27 <b>Co</b> cobalt 58.93	28 <b>Ni</b> nickel 58.69	29 <b>Cu</b> copper 63.55	30 <b>Zn</b> zinc 65.39	31 <b>Ga</b> gallium 69.72	32 <b>Ge</b> germanium 72.64	33 <b>As</b> arsenic 74.92	34 <b>Se</b> selenium 78.96	35 <b>Br</b> bromine 79.90	36 <b>Kr</b> krypton 83.79						
37 <b>Rb</b> rubidium 85.47	38 <b>Sr</b> strontium 87.62	39 <b>Y</b> yttrium 88.91	40 <b>Zr</b> zirconium 91.22	41 <b>Nb</b> niobium 92.91	42 <b>Mo</b> molybdenum 95.96	43 <b>Tc</b> technetium (98)	44 <b>Ru</b> ruthenium 101.1	45 <b>Rh</b> rhodium 102.9	46 <b>Pd</b> palladium 106.4	47 <b>Ag</b> silver 107.9	48 <b>Cd</b> cadmium 112.4	49 <b>In</b> indium 114.8	50 <b>Sn</b> tin 118.7	51 <b>Sb</b> antimony 121.8	52 <b>Te</b> tellurium 127.6	53 <b>I</b> iodine 126.9	54 <b>Xe</b> xenon 131.3						
55 <b>Cs</b> cesium 132.9	56 <b>Ba</b> barium 137.3	*	72 <b>Hf</b> hafnium 178.5	73 <b>Ta</b> tantalum 180.9	74 <b>W</b> tungsten 183.9	75 <b>Re</b> rhenium 186.2	76 <b>Os</b> osmium 190.2	77 <b>Ir</b> iridium 192.2	78 <b>Pt</b> platinum 195.1	79 <b>Au</b> gold 197.0	80 <b>Hg</b> mercury 200.5	81 <b>Tl</b> thallium 204.4	82 <b>Pb</b> lead 207.2	83 <b>Bi</b> bismuth 209.0	84 <b>Po</b> polonium (209)	85 <b>At</b> astatine (210)	86 <b>Rn</b> radon (222)						
87 <b>Fr</b> francium (223)	88 <b>Ra</b> radium (226)	**	104 <b>Rf</b> rutherfordium (267)	105 <b>Db</b> dubnium (268)	106 <b>Sg</b> seaborgium (269)	107 <b>Bh</b> bohrium (270)	108 <b>Hs</b> hassium (277)	109 <b>Mt</b> meitnerium (278)	110 <b>Ds</b> darmstadtium (281)	111 <b>Rg</b> roentgenium (282)	112 <b>Cn</b> copernicium (285)	113 <b>Nh</b> nihonium (286)	114 <b>Fl</b> flerovium (289)	115 <b>Mc</b> moscovium (289)	116 <b>Lv</b> livermorium (293)	117 <b>Ts</b> tennessium (294)	118 <b>Og</b> oganesson (294)						

Lanthanide Series\*

57 <b>La</b> lanthanum 138.9	58 <b>Ce</b> cerium 140.1	59 <b>Pr</b> praseodymium 140.9	60 <b>Nd</b> neodymium 144.2	61 <b>Pm</b> promethium (145)	62 <b>Sm</b> samarium 150.4	63 <b>Eu</b> europium 152.0	64 <b>Gd</b> gadolinium 157.2	65 <b>Tb</b> terbium 158.9	66 <b>Dy</b> dysprosium 162.5	67 <b>Ho</b> holmium 164.9	68 <b>Er</b> erbium 167.3	69 <b>Tm</b> thulium 168.9	70 <b>Yb</b> ytterbium 173.0	71 <b>Lu</b> lutetium 175.0
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Actinide Series\*\*

89 <b>Ac</b> actinium (227)	90 <b>Th</b> thorium 232	91 <b>Pa</b> protactinium 231	92 <b>U</b> uranium 238	93 <b>Np</b> neptunium (237)	94 <b>Pu</b> plutonium (244)	95 <b>Am</b> americium (243)	96 <b>Cm</b> curium (247)	97 <b>Bk</b> berkelium (247)	98 <b>Cf</b> californium (251)	99 <b>Es</b> einsteinium (252)	100 <b>Fm</b> fermium (257)	101 <b>Md</b> mendelevium (258)	102 <b>No</b> nobelium (259)	103 <b>Lr</b> lawrencium (262)
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