Los Alamos National Laboratory Chemistry Division

Periodic Table of the Elements

1A																8A
1 H $1s^1$ hydrogen 1.008	2A											3A	4A	5A	6A	7A	2 He $1s^2$ helium 4.003
3 Li $[He]2s^1$ lithium 6.941	4 Be $[He]2s^2$ beryllium 9.012											5 B $[He]2s^22p^1$ boron 10.81	6 C $[He]2s^22p^2$ carbon 12.01	7 N $[He]2s^22p^3$ nitrogen 14.01	8 O $[He]2s^22p^4$ oxygen 16.00	9 F $[He]2s^22p^5$ fluorine 19.00	10 Ne $[He]2s^22p^6$ neon 20.18
11 Na $[Ne]3s^1$ sodium 22.99	12 Mg $[Ne]3s^2$ magnesium 24.31	3B	4B	5B	6B	7B	8B	8B	8B	11B	12B	13 Al $[Ne]3s^23p^1$ aluminum 26.98	14 Si $[Ne]3s^23p^2$ silicon 28.09	15 P $[Ne]3s^23p^3$ phosphorus 30.97	16 S $[Ne]3s^23p^4$ sulfur 32.07	17 Cl $[Ne]3s^23p^5$ chlorine 35.45	18 Ar $[Ne]3s^23p^6$ argon 39.95
19 K $[Ar]4s^1$ potassium 39.10	20 Ca $[Ar]4s^2$ calcium 40.08	21 Sc $[Ar]4s^23d^1$ scandium 44.96	22 Ti $[Ar]4s^23d^2$ titanium 47.88	23 V $[Ar]4s^23d^3$ vanadium 50.94	24 Cr $[Ar]4s^13d^5$ chromium 52.00	25 Mn $[Ar]4s^23d^5$ manganese 54.94	26 Fe $[Ar]4s^23d^6$ iron 55.85	27 Co $[Ar]4s^23d^7$ cobalt 58.93	28 Ni $[Ar]4s^23d^8$ nickel 58.69	29 Cu $[Ar]4s^13d^{10}$ copper 63.55	30 Zn $[Ar]4s^23d^{10}$ zinc 65.39	31 Ga $[Ar]4s^23d^{10}4p^1$ gallium 69.72	32 Ge $[Ar]4s^23d^{10}4p^2$ germanium 72.58	33 As $[Ar]4s^23d^{10}4p^3$ arsenic 74.92	34 Se $[Ar]4s^23d^{10}4p^4$ selenium 78.96	35 Br $[Ar]4s^23d^{10}4p^5$ bromine 79.90	36 Kr $[Ar]4s^23d^{10}4p^6$ krypton 83.80
37 Rb $[Kr]5s^1$ rubidium 85.47	38 Sr $[Kr]5s^2$ strontium 87.62	39 Y $[Kr]5s^24d^1$ yttrium 88.91	40 Zr $[Kr]5s^24d^2$ zirconium 91.22	41 Nb $[Kr]5s^14d^4$ niobium 92.91	42 Mo $[Kr]5s^14d^5$ molybdenum 95.94	43 Tc $[Kr]5s^24d^5$ technetium (98)	44 Ru $[Kr]5s^14d^7$ ruthenium 101.1	45 Rh $[Kr]5s^14d^8$ rhodium 102.9	46 Pd $[Kr]4d^{10}$ palladium 106.4	47 Ag $[Kr]5s^14d^{10}$ silver 107.9	48 Cd $[Kr]5s^24d^{10}$ cadmium 112.4	49 In $[Kr]5s^24d^{10}5p^1$ indium 114.8	50 Sn $[Kr]5s^24d^{10}5p^2$ tin 118.7	51 Sb $[Kr]5s^24d^{10}5p^3$ antimony 121.8	52 Te $[Kr]5s^24d^{10}5p^4$ tellurium 127.6	53 I $[Kr]5s^24d^{10}5p^5$ iodine 126.9	54 Xe $[Kr]5s^24d^{10}5p^6$ xenon 131.3
55 Cs $[Xe]6s^1$ cesium 132.9	56 Ba $[Xe]6s^2$ barium 137.3	57 La* $[Xe]6s^25d^1$ lanthanum 138.9	72 Hf $[Xe]6s^24f^{14}5d^2$ hafnium 178.5	73 Ta $[Xe]6s^24f^{14}5d^3$ tantalum 180.9	74 W $[Xe]6s^24f^{14}5d^4$ tungsten 183.9	75 Re $[Xe]6s^24f^{14}5d^5$ rhenium 186.2	76 Os $[Xe]6s^24f^{14}5d^6$ osmium 190.2	77 Ir $[Xe]6s^24f^{14}5d^7$ iridium 190.2	78 Pt $[Xe]6s^14f^{14}5d^9$ platinum 195.1	79 Au $[Xe]6s^14f^{14}5d^{10}$ gold 197.0	80 Hg $[Xe]6s^24f^{14}5d^{10}$ mercury 200.5	81 Tl $[Xe]6s^24f^{14}5d^{10}6p^1$ thallium 204.4	82 Pb $[Xe]6s^24f^{14}5d^{10}6p^2$ lead 207.2	83 Bi $[Xe]6s^24f^{14}5d^{10}6p^3$ bismuth 208.9	84 Po $[Xe]6s^24f^{14}5d^{10}6p^4$ polonium (209)	85 At $[Xe]6s^24f^{14}5d^{10}6p^5$ astatine (210)	86 Rn $[Xe]6s^24f^{14}5d^{10}6p^6$ radon (222)
87 Fr $[Rn]7s^1$ francium (223)	88 Ra $[Rn]7s^2$ radium (226)	89 Ac~ $[Rn]7s^26d^1$ actinium (227)	104 Rf $[Rn]7s^25f^{14}6d^2$ rutherfordium (257)	105 Db $[Rn]7s^25f^{14}6d^3$ dubnium (260)	106 Sg $[Rn]7s^25f^{14}6d^4$ seaborgium (263)	107 Bh $[Rn]7s^25f^{14}6d^5$ bohrium (262)	108 Hs $[Rn]7s^25f^{14}6d^6$ hassium (265)	109 Mt $[Rn]7s^25f^{14}6d^7$ meitnerium (266)	110 Ds $[Rn]7s^15f^{14}6d^9$ darmstadtium (271)	111 Uuu (272)	112 Uub (277)		114 Uuq (296)		116 Uuh (298)		118 Uuo (?)

Lanthanide Series*	58 Ce $[Xe]6s^24f^15d^1$ cerium 140.1	59 Pr $[Xe]6s^24f^3$ praseodymium 140.9	60 Nd $[Xe]6s^24f^4$ neodymium 144.2	61 Pm $[Xe]6s^24f^5$ promethium (147)	62 Sm $[Xe]6s^24f^6$ samarium (150.4)	63 Eu $[Xe]6s^24f^7$ europium 152.0	64 Gd $[Xe]6s^24f^75d^1$ gadolinium 157.3	65 Tb $[Xe]6s^24f^9$ terbium 158.9	66 Dy $[Xe]6s^24f^{10}$ dysprosium 162.5	67 Ho $[Xe]6s^24f^{11}$ holmium 164.9	68 Er $[Xe]6s^24f^{12}$ erbium 167.3	69 Tm $[Xe]6s^24f^{13}$ thulium 168.9	70 Yb $[Xe]6s^24f^{14}$ ytterbium 173.0	71 Lu $[Xe]6s^24f^{14}5d^1$ lutetium 175.0
Actinide Series~	90 Th $[Rn]7s^26d^2$ thorium 232.0	91 Pa $[Rn]7s^25f^26d^1$ protactinium (231)	92 U $[Rn]7s^25f^36d^1$ uranium (238)	93 Np $[Rn]7s^25f^46d^1$ neptunium (237)	94 Pu $[Rn]7s^25f^6$ plutonium (242)	95 Am $[Rn]7s^25f^7$ americium (243)	96 Cm $[Rn]7s^25f^76d^1$ curium (247)	97 Bk $[Rn]7s^25f^9$ berkelium (247)	98 Cf $[Rn]7s^25f^{10}$ californium (249)	99 Es $[Rn]7s^25f^{11}$ einsteinium (254)	100 Fm $[Rn]7s^25f^{12}$ fermium (253)	101 Md $[Rn]7s^25f^{13}$ mendelevium (256)	102 No $[Rn]7s^25f^{14}$ nobelium (254)	103 Lr $[Rn]7s^25f^{14}6d^1$ lawrencium (257)

Los Alamos NATIONAL LABORATORY

CHEMISTRY

element names in **blue** are liquids at room temperature
element names in red are gases at room temperature
element names in black are solids at room temperature