Los Alamos National Laboratory Chemistry Division

Periodic Table of the Elements

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1A	2A	3B	4B	5B	6B	7B	8B			11B	12B	3A	4A	5A	6A	7A	8A
1 H $1s^1$ hydrogen 1.008																	2 He $1s^2$ helium 4.003
3 Li [He]$2s^1$ lithium 6.94	4 Be [He]$2s^2$ beryllium 9.012											5 B [He]$2s^2 2p^1$ boron 10.81	6 C [He]$2s^2 2p^2$ carbon 12.01	7 N [He]$2s^2 2p^3$ nitrogen 14.01	8 O [He]$2s^2 2p^4$ oxygen 16.00	9 F [He]$2s^2 2p^5$ fluorine 19.00	10 Ne [He]$2s^2 2p^6$ neon 20.18
11 Na [Ne]$3s^1$ sodium 22.99	12 Mg [Ne]$3s^2$ magnesium 24.31											13 Al [Ne]$3s^2 3p^1$ aluminum 26.98	14 Si [Ne]$3s^2 3p^2$ silicon 28.09	15 P [Ne]$3s^2 3p^3$ phosphorus 30.97	16 S [Ne]$3s^2 3p^4$ sulfur 32.06	17 Cl [Ne]$3s^2 3p^5$ chlorine 35.45	18 Ar [Ne]$3s^2 3p^6$ argon 39.95
19 K [Ar]$4s^1$ potassium 39.10	20 Ca [Ar]$4s^2$ calcium 40.08	21 Sc [Ar]$4s^2 3d^1$ scandium 44.96	22 Ti [Ar]$4s^2 3d^2$ titanium 47.88	23 V [Ar]$4s^2 3d^3$ vanadium 50.94	24 Cr [Ar]$4s^1 3d^5$ chromium 52.00	25 Mn [Ar]$4s^2 3d^5$ manganese 54.94	26 Fe [Ar]$4s^2 3d^6$ iron 55.85	27 Co [Ar]$4s^2 3d^7$ cobalt 58.93	28 Ni [Ar]$4s^2 3d^8$ nickel 58.69	29 Cu [Ar]$4s^1 3d^{10}$ copper 63.55	30 Zn [Ar]$4s^2 3d^{10}$ zinc 65.39	31 Ga [Ar]$4s^2 3d^{10} 4p^1$ gallium 69.72	32 Ge [Ar]$4s^2 3d^{10} 4p^2$ germanium 72.64	33 As [Ar]$4s^2 3d^{10} 4p^3$ arsenic 74.92	34 Se [Ar]$4s^2 3d^{10} 4p^4$ selenium 78.96	35 Br [Ar]$4s^2 3d^{10} 4p^5$ bromine 79.90	36 Kr [Ar]$4s^2 3d^{10} 4p^6$ krypton 83.79
37 Rb [Kr]$5s^1$ rubidium 85.47	38 Sr [Kr]$5s^2$ strontium 87.62	39 Y [Kr]$5s^2 4d^1$ yttrium 88.91	40 Zr [Kr]$5s^2 4d^2$ zirconium 91.22	41 Nb [Kr]$5s^1 4d^4$ niobium 92.91	42 Mo [Kr]$5s^1 4d^5$ molybdenum 95.96	43 Tc [Kr]$5s^2 4d^5$ technetium (98)	44 Ru [Kr]$5s^1 4d^7$ ruthenium 101.1	45 Rh [Kr]$5s^1 4d^8$ rhodium 102.9	46 Pd [Kr]$4d^{10}$ palladium 106.4	47 Ag [Kr]$5s^1 4d^{10}$ silver 107.9	48 Cd [Kr]$5s^2 4d^{10}$ cadmium 112.4	49 In [Kr]$5s^2 4d^{10} 5p^1$ indium 114.8	50 Sn [Kr]$5s^2 4d^{10} 5p^2$ tin 118.7	51 Sb [Kr]$5s^2 4d^{10} 5p^3$ antimony 121.8	52 Te [Kr]$5s^2 4d^{10} 5p^4$ tellurium 127.6	53 I [Kr]$5s^2 4d^{10} 5p^5$ iodine 126.9	54 Xe [Kr]$5s^2 4d^{10} 5p^6$ xenon 131.3
55 Cs [Xe]$6s^1$ cesium 132.9	56 Ba [Xe]$6s^2$ barium 137.3	*	72 Hf [Xe]$6s^2 4f^{14} 5d^2$ hafnium 178.5	73 Ta [Xe]$6s^2 4f^{14} 5d^3$ tantalum 180.9	74 W [Xe]$6s^2 4f^{14} 5d^4$ tungsten 183.9	75 Re [Xe]$6s^2 4f^{14} 5d^5$ rhenium 186.2	76 Os [Xe]$6s^2 4f^{14} 5d^6$ osmium 190.2	77 Ir [Xe]$6s^2 4f^{14} 5d^7$ iridium 192.2	78 Pt [Xe]$6s^1 4f^{14} 5d^9$ platinum 195.1	79 Au [Xe]$6s^1 4f^{14} 5d^{10}$ gold 197.0	80 Hg [Xe]$6s^2 4f^{14} 5d^{10}$ mercury 200.5	81 Tl [Xe]$6s^2 4f^{14} 5d^{10} 6p^1$ thallium 204.4	82 Pb [Xe]$6s^2 4f^{14} 5d^{10} 6p^2$ lead 207.2	83 Bi [Xe]$6s^2 4f^{14} 5d^{10} 6p^3$ bismuth 209.0	84 Po [Xe]$6s^2 4f^{14} 5d^{10} 6p^4$ polonium (209)	85 At [Xe]$6s^2 4f^{14} 5d^{10} 6p^5$ astatine (210)	86 Rn [Xe]$6s^2 4f^{14} 5d^{10} 6p^6$ radon (222)
87 Fr [Rn]$7s^1$ francium (223)	88 Ra [Rn]$7s^2$ radium (226)	**	104 Rf [Rn]$7s^2 5f^{14} 6d^2$ rutherfordium (265)	105 Db [Rn]$7s^2 5f^{14} 6d^3$ dubnium (268)	106 Sg [Rn]$7s^2 5f^{14} 6d^4$ seaborgium (271)	107 Bh [Rn]$7s^2 5f^{14} 6d^5$ bohrium (270)	108 Hs [Rn]$7s^2 5f^{14} 6d^6$ hassium (277)	109 Mt [Rn]$7s^2 5f^{14} 6d^7$ meitnerium (276)	110 Ds [Rn]$7s^1 5f^{14} 6d^9$ darmstadtium (281)	111 Rg roentgenium (280)	112 Cn copernicium (285)	113 Uut (284)	114 Fl flerovium (289)	115 Uup (288)	116 Lv livermorium (293)	117 Uus (294)	118 Uuo (294)

Lanthanide Series*	57 La Xe]$6s^2 5d^1$ lanthanum 138.9	58 Ce [Xe]$6s^2 4f^1 5d^1$ cerium 140.1	59 Pr [Xe]$6s^2 4f^3$ praseodymium 140.9	60 Nd [Xe]$6s^2 4f^4$ neodymium 144.2	61 Pm [Xe]$6s^2 4f^5$ promethium (145)	62 Sm [Xe]$6s^2 4f^6$ samarium 150.4	63 Eu [Xe]$6s^2 4f^7$ europium 152.0	64 Gd [Xe]$6s^2 4f^7 5d^1$ gadolinium 157.2	65 Tb [Xe]$6s^2 4f^9$ terbium 158.9	66 Dy [Xe]$6s^2 4f^{10}$ dysprosium 162.5	67 Ho [Xe]$6s^2 4f^{11}$ holmium 164.9	68 Er [Xe]$6s^2 4f^{12}$ erbium 167.3	69 Tm [Xe]$6s^2 4f^{13}$ thulium 168.9	70 Yb [Xe]$6s^2 4f^{14}$ ytterbium 173.0	71 Lu [Xe]$6s^2 4f^{14} 5d^1$ lutetium 175.0
Actinide Series**	89 Ac [Rn]$7s^2 6d^1$ actinium (227)	90 Th [Rn]$7s^2 6d^2$ thorium 232	91 Pa [Rn]$7s^2 5f^2 6d^1$ protactinium 231	92 U [Rn]$7s^2 5f^3 6d^1$ uranium 238	93 Np [Rn]$7s^2 5f^4 6d^1$ neptunium (237)	94 Pu [Rn]$7s^2 5f^6$ plutonium (244)	95 Am [Rn]$7s^2 5f^7$ americium (243)	96 Cm [Rn]$7s^2 5f^7 6d^1$ curium (247)	97 Bk [Rn]$7s^2 5f^9$ berkelium (247)	98 Cf [Rn]$7s^2 5f^{10}$ californium (251)	99 Es [Rn]$7s^2 5f^{11}$ einsteinium (252)	100 Fm [Rn]$7s^2 5f^{12}$ fermium (257)	101 Md [Rn]$7s^2 5f^{13}$ mendelevium (258)	102 No [Rn]$7s^2 5f^{14}$ nobelium (259)	103 Lr [Rn]$7s^2 5f^{14} 6d^1$ lawrencium (262)

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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