

Periodic Table of the Elements

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1A																	2A				
1 H 1s hydrogen 1.008																	2 He 1s helium 4.003				
3 Li [He]2s lithium 6.941	4 Be [He]2s beryllium 9.012															5 B [He]2s ² 2p 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 sodium 22.99	12 Mg [Ne]3s magnesium 24.31															13 Al [Ne]3s ² 3p 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 32.07	17 Cl [Ne]3s ² 3p ⁵ chlorine 35.45	18 Ar [Ne]3s ² 3p ⁶ argon 39.95
19 K [Ar]4s potassium 39.10	20 Ca [Ar]4s calcium 40.08	3B	4B	5B	6B	7B	8B			11B	12B	31 Ga [Ar]4s ² 3d ¹⁰ 4p 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 rubidium 85.47	38 Sr [Kr]5s strontium 87.62	39 Y [Kr]5s ² 4d 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 95.94	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 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 cesium 132.9	56 Ba [Xe]6s 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 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 francium (223)	88 Ra [Rn]7s radium (226)	**	104 Rf [Rn]7s ² 5f ¹⁴ 6d ² rutherfordium (261)	105 Db [Rn]7s ² 5f ¹⁴ 6d ³ dubnium (262)	106 Sg [Rn]7s ² 5f ¹⁴ 6d ⁴ seaborgium (266)	107 Bh [Rn]7s ² 5f ¹⁴ 6d ⁵ bohrium (264)	108 Hs [Rn]7s ² 5f ¹⁴ 6d ⁶ hassium (277)	109 Mt [Rn]7s ² 5f ¹⁴ 6d ⁷ meitnerium (268)	110 Ds [Rn]7s ¹ 5f ¹⁴ 6d ⁹ darmstadtium (271)	111 Rg [Rn]7s ² 5f ¹⁴ 6d ⁹ roentgenium (272)	112 Cn [Rn]7s ² 5f ¹⁴ 6d ¹⁰ copernicium (277)	113 Uut (?)	114 Uuq (285)	115 Uup (?)	116 Uuh (289)	117 Uus (?)	118 Uuo (?)				
Lanthanide Series*			57 La [Xe]6s ² 5d lanthanum 138.9	58 Ce [Xe]6s ² 4f ¹ 5d 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 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 lutetium 175.0				
Actinide Series**			89 Ac [Rn]7s ² 6d actinium (227)	90 Th [Rn]7s ² 6d ² thorium 232.0	91 Pa [Rn]7s ² 5f ² 6d protactinium 231	92 U [Rn]7s ² 5f ³ 6d uranium 238	93 Np [Rn]7s ² 5f ⁴ 6d 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 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 lawrencium (262)				