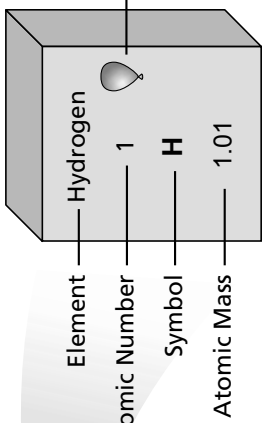


PERIODIC TABLE OF THE ELEMENTS

1 1A	2 2A	3 3B	4 4B	5 5B	6 6B	7 7B	8 8B	9	10	11 1B	12 2B	13 3A	14 4A	15 5A	16 6A	17 7A	18 8A	
Hydrogen 1 H 1.01	Beryllium 4 Be 9.01	Sodium 11 Na 22.99	Potassium 19 K 39.10	Rubidium 37 Rb 85.47	Cesium 55 Cs 132.91	Francium 87 Fr 223.02	Lithium 3 Li 6.94	Sodium 11 Na 22.99	Potassium 19 K 39.10	Rubidium 37 Rb 85.47	Cesium 55 Cs 132.91	Francium 87 Fr 223.02	Boron 5 B 10.81	Carbon 6 C 12.01	Nitrogen 7 N 14.01	Oxygen 8 O 16.00	Fluorine 9 F 19.00	Helium 2 He 4.00
Hydrogen 1 H 1.01	Lithium 3 Li 6.94	Sodium 11 Na 22.99	Potassium 19 K 39.10	Rubidium 37 Rb 85.47	Cesium 55 Cs 132.91	Francium 87 Fr 223.02	Beryllium 4 Be 9.01	Magnesium 12 Mg 24.31	Calcium 20 Ca 40.08	Strontium 38 Sr 87.62	Barium 56 Ba 137.33	Radium 88 Ra 226.03	Aluminum 13 Al 26.98	Silicon 14 Si 28.09	Germanium 32 Ge 72.63	Tin 50 Sn 118.71	Lead 82 Pb 207.20	Aluminum 13 Al 26.98
Hydrogen 1 H 1.01	Lithium 3 Li 6.94	Sodium 11 Na 22.99	Potassium 19 K 39.10	Rubidium 37 Rb 85.47	Cesium 55 Cs 132.91	Francium 87 Fr 223.02	Beryllium 4 Be 9.01	Magnesium 12 Mg 24.31	Calcium 20 Ca 40.08	Strontium 38 Sr 87.62	Barium 56 Ba 137.33	Radium 88 Ra 226.03	Aluminum 13 Al 26.98	Silicon 14 Si 28.09	Germanium 32 Ge 72.63	Tin 50 Sn 118.71	Lead 82 Pb 207.20	Aluminum 13 Al 26.98
Hydrogen 1 H 1.01	Lithium 3 Li 6.94	Sodium 11 Na 22.99	Potassium 19 K 39.10	Rubidium 37 Rb 85.47	Cesium 55 Cs 132.91	Francium 87 Fr 223.02	Beryllium 4 Be 9.01	Magnesium 12 Mg 24.31	Calcium 20 Ca 40.08	Strontium 38 Sr 87.62	Barium 56 Ba 137.33	Radium 88 Ra 226.03	Aluminum 13 Al 26.98	Silicon 14 Si 28.09	Germanium 32 Ge 72.63	Tin 50 Sn 118.71	Lead 82 Pb 207.20	Aluminum 13 Al 26.98
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Lanthanide Series	Actinide Series
Cerium 58 Ce 140.12	Thorium 90 Th 232.04
Praseodymium 59 Pr 140.91	Protactinium 91 Pa 231.04
Neodymium 60 Nd 144.24	Uranium 92 U 238.03
Promethium 61 Pm (145)	Neptunium 93 Np (237)
Samarium 62 Sm 150.35	Plutonium 94 Pu (244)
Europium 63 Eu 151.96	Americium 95 Am (243)
Gadolinium 64 Gd 157.25	Curium 96 Cm (247)
Terbium 65 Tb 158.93	Berkelium 97 Bk (247)
Dysprosium 66 Dy 162.50	Californium 98 Cf (251)
Holmium 67 Ho 164.93	Einsteinium 99 Es (252)
Erbium 68 Er 167.26	Fermium 100 Fm (257)
Thulium 69 Tm 168.93	Mendelevium 101 Md (258)
Ytterbium 70 Yb 173.05	Nobelium 102 No (259)
Lutetium 71 Lu 174.97	Lawrencium 103 Lr (262)

Common Ions

+1 Charge

+2 Charge

+3 Charge

Cations

Name	Formula	Name	Formula	Name	Formula
ammonium	NH ₄ ⁺	barium	Ba ²⁺	aluminum	Al ³⁺
copper(I) (cuprous)	Cu ⁺	cadmium	Cd ²⁺	chromium(III) (chromic)	Cr ³⁺
hydrogen	H ⁺	calcium	Ca ²⁺	iron(III) (ferric)	Fe ³⁺
lithium	Li ⁺	chromium(II) (chromous)	Cr ²⁺		
potassium	K ⁺	cobalt(II)	Co ²⁺		
silver	Ag ⁺	copper(II) (cupric)	Cu ²⁺		
sodium	Na ⁺	iron(II) (ferrous)	Fe ²⁺		
		lead(II) (plumbous)	Pb ²⁺		
		magnesium	Mg ²⁺		
		manganese(II) (manganous)	Mn ²⁺	+4 Charge	
		mercury(I) (mercurous)	Hg ₂ ²⁺	lead(IV) (plumbic)	Pb ⁴⁺
		mercury(II) (mercuric)	Hg ²⁺	tin(IV) (stannic)	Sn ⁴⁺
		tin(II) (stannous)	Sn ²⁺		
		zinc	Zn ²⁺		
		nickel(II)	Ni ²⁺		

-1 Charge

-2 Charge

-3 Charge

Anions

Name	Formula	Name	Formula	Name	Formula
acetate	C ₂ H ₃ O ₂ ⁻ (CH ₃ COO ⁻)	carbonate	CO ₃ ²⁻	arsenate	AsO ₄ ³⁻
bromide	Br ⁻	chromate	CrO ₄ ²⁻	nitride	N ³⁻
chloride	Cl ⁻	dichromate	Cr ₂ O ₇ ²⁻	phosphide	P ³⁻
iodide	I ⁻	hydrogen phosphate (biphosphate)	HPO ₄ ²⁻	phosphate	PO ₄ ³⁻
hypochlorite	ClO ⁻	oxalate	C ₂ O ₄ ²⁻		
cyanide	CN ⁻	oxide	O ²⁻		
hydrogen carbonate (bicarbonate)	HCO ₃ ⁻	peroxide	O ₂ ²⁻		
chlorate	ClO ₃ ⁻	silicate	SiO ₃ ²⁻		
fluoride	F ⁻	sulfate	SO ₄ ²⁻		
hydrogen sulfate (bisulfate)	HSO ₄ ⁻	sulfide	S ²⁻		
chlorite	ClO ₂ ⁻	sulfite	SO ₃ ²⁻		
hydroxide	OH ⁻	thiosulfate	S ₂ O ₃ ²⁻		
nitrate	NO ₃ ⁻				
nitrite	NO ₂ ⁻				
perchlorate	ClO ₄ ⁻				
permanganate	MnO ₄ ⁻				
thiocyanate	SCN ⁻				