

KNOW YOUR IONS

COMMON MONATOMIC IONS

TYPE I

1+	2+	3+
Hydrogen, H ⁺ Lithium, Li ⁺ Sodium, Na ⁺ Potassium, K ⁺ Rubidium, Rb ⁺ Cesium, Cs ⁺ Silver, Ag ⁺	Magnesium, Mg ²⁺ Calcium, Ca ²⁺ Strontium, Sr ²⁺ Barium, Ba ²⁺ Zinc, Zn ²⁺ Cadmium, Cd ²⁺	Aluminum, Al ³⁺
1-	2-	3-
Fluoride, F ⁻ Chloride, Cl ⁻ Bromide, Br ⁻ Iodide, I ⁻ Hydride, H ⁻	Oxide, O ²⁻ Sulfide, S ²⁻	Nitride, N ³⁻ Phosphide, P ³⁻

TYPE II

Element	Ion	Stock Name	Classical Name
Copper	Cu ⁺	Copper (I)	Cuprous
Copper	Cu ²⁺	Copper (II)	Cupric
Iron	Fe ²⁺	Iron (II)	Ferrous
Iron	Fe ³⁺	Iron (III)	Ferric
Lead	Pb ²⁺	Lead (II)	Plumbous
Lead	Pb ⁴⁺	Lead (IV)	Plumbic
Tin	Sn ²⁺	Tin (II)	Stannous
Tin	Sn ⁴⁺	Tin (IV)	Stannic
Chromium	Cr ²⁺	Chromium (II)	-----
Chromium	Cr ³⁺	Chromium (III)	-----
Nickel	Ni ²⁺	Nickel (II)	-----
Nickel	Ni ³⁺	Nickel (III)	-----

COMMON POLYATOMIC IONS

1+		
Ammonium, NH ₄ ⁺		
1-	2-	3-
Acetate, C ₂ H ₃ O ₂ ⁻ Bicarbonate, HCO ₃ ⁻ Nitrate, NO ₃ ⁻ Cyanide, CN ⁻ Hydroxide, OH ⁻	Carbonate, CO ₃ ²⁻ Sulfate, SO ₄ ²⁻	Phosphate, PO ₄ ³⁻

PERIODIC TABLE OF ELEMENTS

Type I

Type II

IA 1 H 1.008															VIIA 1 H 1.008	2 He 4.002	
3 Li 6.941	IIA 4 Be 9.012											III A 5 B 10.81	IV A 6 C 12.01	V A 7 N 14.01	VI A 8 O 16.00	9 F 19.00	10 Ne 20.18
11 Na 22.99	12 Mg 24.30											13 Al 26.98	14 Si 28.09	15 P 30.97	16 S 32.06	17 Cl 35.45	18 Ar 39.95
19 K 39.10	20 Ca 40.08	21 Sc 44.96	22 Ti 47.87	23 V 50.94	24 Cr 52.00	25 Mn 54.94	26 Fe 55.85	27 Co 58.93	28 Ni 58.69	29 Cu 63.55	30 Zn 65.38	31 Ga 69.72	32 Ge 72.61	33 As 74.92	34 Se 78.96	35 Br 79.90	36 Kr 83.80
37 Rb 85.47	38 Sr 87.62	39 Y 88.91	40 Zr 91.22	41 Nb 92.91	42 Mo 95.96	43 Tc (98)	44 Ru 101.07	45 Rh 102.91	46 Pd 106.42	47 Ag 107.87	48 Cd 112.41	49 In 114.82	50 Sn 118.71	51 Sb 121.76	52 Te 127.60	53 I 126.90	54 Xe 131.29
55 Cs 132.91	56 Ba 137.33	57 La 138.91	72 Hf 178.49	73 Ta 180.95	74 W 183.84	75 Re 186.21	76 Os 190.23	77 Ir 192.22	78 Pt 195.08	79 Au 196.97	80 Hg 200.59	81 Tl 204.38	82 Pb 207.2	83 Bi 208.98	84 Po (209)	85 At (210)	86 Rn (222)
87 Fr (223)	88 Ra (226)	89 Ac (227)	104 Rf (267)	105 Db (268)	106 Sg (271)	107 Bh (272)	108 Hs (270)	109 Mt (276)	110 Ds (281)	111 Rg (280)	112 Cn (285)	113 Uut (284)	114 Uuq (289)	115 Uup (288)	116 Uuh (293)	117 Uus (293)	118 Uuo (294)

Lanthanide series

58 Ce 140.12	59 Pr 140.91	60 Nd 144.24	61 Pm (145)	62 Sm 150.36	63 Eu 151.96	64 Gd 157.25	65 Tb 158.93	66 Dy 162.50	67 Ho 164.93	68 Er 167.26	69 Tm 168.93	70 Yb 173.06	71 Lu 174.97
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Actinide series

90 Th 232.04	91 Pa 231.04	92 U 238.03	93 Np (237)	94 Pu (244)	95 Am (243)	96 em (247)	97 Bk (247)	98 Cf (251)	99 Es (252)	100 Fm (257)	101 Md (258)	102 No (259)	103 Lr (262)
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