Periodic Table of Elements

11	Atomic Number
Na	Atomic Symbol
Sodium	Element name
22.99	Average Atomic mass
( )	Indicates mass of the most stable isotope

IA 1	IIA 2		IIIB 3	IVB 4	VB 5	VIB 6	VIIB 7	VIIIB 8	VIIIB 9	VIIIB 10	IB 11	IIB 12	IIIA 13	IVA 14	VA 15	VIA 16	VIIA 17	VIII A 18
1 H Hydrogen 1.01																		2 He Helium 4.00
3 Li Lithium 6.94	4 Be Beryllium 9.01												5 B Boron 10.81	6 C Carbon 12.01	7 N Nitrogen 14.01	8 O Oxygen 16.00	9 F Fluorine 19.00	10 Ne Neon 20.18
11 Na Sodium 22.99	12 Mg Magnesium 24.31												13 Al Aluminum 26.98	14 Si Silicon 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.07	17 Cl Chlorine 35.45	18 Ar Argon 39.95
19 K Potassium 39.10	20 Ca Calcium 40.08		21 Sc Scandium 44.96	22 Ti Titanium 47.87	23 V Vanadium 50.94	24 Cr Chromium 52.00	25 Mn Manganese 54.94	26 Fe Iron 55.85	27 Co Cobalt 58.93	28 Ni Nickel 58.69	29 Cu Copper 63.55	30 Zn Zinc 65.41	31 Ga Gallium 69.72	32 Ge Germanium 72.64	33 As Arsenic 74.92	34 Se Selenium 78.96	35 Br Bromine 79.90	36 Kr Krypton 83.80
37 Rb Rubidium 85.47	38 Sr Strontium 87.62		39 Y Yttrium 88.91	40 Zr Zirconium 91.22	41 Nb Niobium 92.91	42 Mo Molybdenum 95.94	43 Tc Technetium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.91	46 Pd Palladium 106.42	47 Ag Silver 107.87	48 Cd Cadmium 112.41	49 In Indium 114.82	50 Sn Tin 118.71	51 Sb Antimony 121.76	52 Te Tellurium 127.60	53 I Iodine 126.90	54 Xe Xenon 131.29
55 Cs Cesium 132.91	56 Ba Barium 137.33	57-70 *	71 Lu Lutetium 174.97	72 Hf Hafnium 178.49	73 Ta Tantalum 180.95	74 W Tungsten 183.84	75 Re Rhenium 186.21	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.97	80 Hg Mercury 200.59	81 Tl Thallium 204.38	82 Pb Lead 207.21	83 Bi Bismuth 208.98	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89-102 **	103 Lr Lawrencium (262)	104 Rf Rutherfordium (261)	105 Db Dubnium (262)	106 Sg Seaborgium (266)	107 Bh Bohrium (264)	108 Hs Hassium (269)	109 Mt Meitnerium (268)	110 Ds Darmstadtium (271)	111 Rg Roentgenium (272)	112 Uub Ununbium (285)	113 Uut Ununtrium (284)	114 Uuq Ununquadium (289)	115 Uup Ununpentium (288)	116 Uuh Ununhexium (292)	117 Uus Ununseptium (?)	118 Uuo Ununoctium (293)

*§ Lanthanoid Series

57 § La Lanthanum 138.91	58 Ce Cerium 140.12	59 Pr Praseodymium 140.91	60 Nd Neodymium 144.24	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.96	64 Gd Gadolinium 157.25	65 Tb Terbium 158.93	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93	68 Er Erbium 167.26	69 Tm Thulium 168.93	70 Yb Ytterbium 173.04

**¥ Actinoid Sereos

89 Ac Actinium (227)	90 Th Thorium (232)	91 Pa Protactinium 231.04	92 U Uranium 238.03	93 Np Neptunium (237)	94 Pu Plutonium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)

Names, Formulas and Charges of some Common Ions

Positive Ions	(cations)	Negative Ions	(anions)
Aluminum	Al^{3+}	Acetate	CH_3COO^{1-} or $C_2H_3O_2^{1-}$
Ammonium	NH_4^{1+}	Bromide	Br^{1-}
Barium	Ba^{2+}	Carbonate	CO_3^{2-}
Beryllium	Be^{2+}	Bicarbonate, hydrogen carbonate	HCO_3^{1-}
Cadmium	Cd^{2+}	Chlorate	ClO_3^{1-}
Calcium	Ca^{2+}	Chloride	Cl^{1-}
Cesium	Cs^{1+}	Chlorite	ClO_2^{1-}
Chromium (II), chromous	Cr^{2+}	Chromate	CrO_4^{2-}
Chromium (III), chromic	Cr^{3+}	Dichromate	$Cr_2O_7^{2-}$
Cobalt	Co^{2+}	Fluoride	F^{1-}
Copper (I), cuprous	Cu^{1+}	Hydride	H^{1-}
Copper (II), cupric	Cu^{2+}	Hydroxide	OH^{1-}
Hydrogen	H^{1+}	Hypochlorite	ClO^{1-}
Hydronium	H_3O^{1+}	Iodide	I^{1-}
Iron (II), ferrous	Fe^{2+}	Oxide	O^{2-}
Iron (III), ferric	Fe^{3+}	Nitrate	NO_3^{1-}
Francium	Fr^{1+}	Nitride	N^{3-}
Lead (II), plumbous	Pb^{2+}	Nitrite	NO_2^{1-}
Lead (IV), plumbic	Pb^{4+}	Oxalate	$C_2O_4^{2-}$
Lithium	Li^{1+}	Binoxalate, hydrogen oxalate	$HC_2O_4^{1-}$
Magnesium	Mg^{2+}	Perchlorate	ClO_4^{1-}
Manganese (II), manganous	Mn^{2+}	Permanagate	MnO_4^{1-}
Manganese (IV), manganic	Mn^{4+}	Phosphate	PO_4^{3-}
Mercury (I), mercurous	Hg^{1+}	Monohydrogen phosphate	HPO_4^{2-}
Mercury (II), mercuric	Hg^{2+}	Dihydrogen phosphate	$H_2PO_4^{1-}$
Nickel	Ni^{2+}	Phosphite	PO_3^{2-}
Potassium	K^{1+}	Biphosphite, hydrogen phosphite	HPO_3^{1-}
Radium	Ra^{2+}	Phosphide	P^{3-}
Rubidium	Rb^{1+}	Sellenide	Se^{2-}
Scandium	Sc^{3+}	Sulphate	SO_4^{2-}
Silver	Ag^{1+}	Bisulfate or hydrogen sulphate	HSO_4^{1-}
Sodium	Na^{1+}	Sulphide	S^{2-}
Strontium	Sr^{2+}	Bisulfide or hydrogen sulfide	HS^{1-}
Tin (II), stannous	Sn^{2+}	Sulfite	SO_3^{2-}
Tin (IV), stannic	Sn^{4+}	Bisulfite or hydrogen sulfite	HSO_3^{1-}
Zinc	Zn^{2+}	Telluride	Te^{2-}
		Peroxide	O_2^{2-}

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Positive Ions	(cations)	Negative Ions	(anions)
Aluminum	Al^{3+}	Acetate	CH_3COO^{1-} or $C_2H_3O_2^{1-}$
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Barium	Ba^{2+}	Carbonate	CO_3^{2-}
Beryllium	Be^{2+}	Bicarbonate, hydrogen carbonate	HCO_3^{1-}
Cadmium	Cd^{2+}	Chlorate	ClO_3^{1-}
Calcium	Ca^{2+}	Chloride	Cl^{1-}
Cesium	Cs^{1+}	Chlorite	ClO_2^{1-}
Chromium (II), chromous	Cr^{2+}	Chromate	CrO_4^{2-}
Chromium (III), chromic	Cr^{3+}	Dichromate	$Cr_2O_7^{2-}$
Cobalt	Co^{2+}	Fluoride	F^{1-}
Copper (I), cuprous	Cu^{1+}	Hydride	H^{1-}
Copper (II), cupric	Cu^{2+}	Hydroxide	OH^{1-}
Hydrogen	H^{1+}	Hypochlorite	ClO^{1-}
Hydronium	H_3O^{1+}	Iodide	I^{1-}
Iron (II), ferrous	Fe^{2+}	Oxide	O^{2-}
Iron (III), ferric	Fe^{3+}	Nitrate	NO_3^{1-}
Francium	Fr^{1+}	Nitride	N^{3-}
Lead (II), plumbous	Pb^{2+}	Nitrite	NO_2^{1-}
Lead (IV), plumbic	Pb^{4+}	Oxalate	$C_2O_4^{2-}$
Lithium	Li^{1+}	Binoxalate, hydrogen oxalate	$HC_2O_4^{1-}$
Magnesium	Mg^{2+}	Perchlorate	ClO_4^{1-}
Manganese (II), manganous	Mn^{2+}	Permanagate	MnO_4^{1-}
Manganese (IV), manganic	Mn^{4+}	Phosphate	PO_4^{3-}
Mercury (I), mercurous	Hg^{1+}	Monohydrogen phosphate	HPO_4^{2-}
Mercury (II), mercuric	Hg^{2+}	Dihydrogen phosphate	$H_2PO_4^{1-}$
Nickel	Ni^{2+}	Phosphite	PO_3^{2-}
Potassium	K^{1+}	Biphosphite, hydrogen phosphite	HPO_3^{1-}
Radium	Ra^{2+}	Phosphide	P^{3-}
Rubidium	Rb^{1+}	Sellenide	Se^{2-}
Scandium	Sc^{3+}	Sulphate	SO_4^{2-}
Silver	Ag^{1+}	Bisulfate or hydrogen sulphate	HSO_4^{1-}
Sodium	Na^{1+}	Sulphide	S^{2-}
Strontium	Sr^{2+}	Bisulfide or hydrogen sulfide	HS^{1-}
Tin (II), stannous	Sn^{2+}	Sulfite	SO_3^{2-}
Tin (IV), stannic	Sn^{4+}	Bisulfite or hydrogen sulfite	HSO_3^{1-}
Zinc	Zn^{2+}	Telluride	Te^{2-}
		Peroxide	O_2^{2-}