

# NUTRITIONAL CHEMISTRY

Excerpted from:  
**Nutritional Self-Defense: Better Health  
 in a Polluted, Over-Processed,  
 and Stressful World**  
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[WWW.CYBERLEPSY.NET/ANAPHASE.HTM](http://WWW.CYBERLEPSY.NET/ANAPHASE.HTM)

## PERIODIC TABLE of the ELEMENTS

PERIODS		METALS										NONMETALS							
I A		TRANSITION METALS										VII A				0			
II A												III A	IV A	V A	VIA	H [1]	He [2]		
1 0	1.00797 H [1] 1															1.00797 H [1] 1	4.0026 He [2] 2		
2 2	6.939 Li [3] 1	9.0122 Be [4] 2											10.811 B [5] 3	12.01115 C [6] 4	14.0067 N [7] 5	15.9994 O [8] 6	18.9984 F [9] 7	20.183 Ne [10] 8	
3 2, 8	22.9898 Na [11] 1	24.312 Mg [12] 2	III B	IV B	V B	VIB	VII B	VIII B		IB	II B	26.9815 Al [13] 3	28.086 Si [14] 4	30.9738 P [15] 5	32.064 S [16] 6	35.453 Cl [17] 7	39.948 Ar [18] 8		
4 2, 8	39.102 K [19] 8, 1	40.08 Ca [20] 8, 2	44.956 Sc [21] 9, 2	47.90 Ti [22] 10, 2	50.942 V [23] 11, 2	51.996 Cr [24] 13, 1	54.9380 Mn [25] 13, 2	55.847 Fe [26] 14, 2	58.9332 Co [27] 15, 2	58.71 Ni [28] 16, 2	63.54 Cu [29] 18, 1	65.37 Zn [30] 18, 2	69.72 Ga [31] 18, 3	72.59 Ge [32] 18, 2	74.9216 As [33] 18, 5	78.96 Se [34] 18, 6	79.909 Br [35] 18, 7	83.80 Kr [36] 18, 8	
5 2, 8, 18	85.47 Rb [37] 8, 1	87.62 Sr [38] 8, 2	88.905 Y [39] 9, 2	88.905 Zr [40] 10, 2	92.906 Nb [41] 12, 1	95.94 Mo [42] 13, 1	(99) Tc [43] 14, 1	101.07 Ru [44] 15, 1	102.905 Rh [45] 16, 1	105.4 Pd [46] 18	107.870 Ag [47] 18, 1	112.40 Cd [48] 18, 2	114.82 In [49] 18, 3	118.69 Sn [50] 18, 4	121.75 Sb [51] 18, 5	127.60 Te [52] 18, 6	126.9044 I [53] 18, 7	131.30 Xe [54] 18, 8	
6 2, 8, 18	132.905 Cs [55] 18, 8, 1	137.34 Ba [56] 18, 8, 2	[57-71] * 9, 2	178.49 Hf [72] 32, 10, 2	180.948 Ta [73] 1	183.85 W [74] 32, 12, 2	186.2 Re [75] 32, 13, 2	190.2 Os [76] 32, 14, 2	192.2 Ir [77] 32, 15, 2	195.09 Pt [78] 32, 17, 2	196.967 Au [79] 32, 18, 1	200.59 Hg [80] 32, 18, 2	204.37 Tl [81] 32, 18, 3	207.19 Pb [82] 32, 18, 4	208.980 Bi [83] 32, 18, 5	(210) Po [84] 32, 18, 6	(210) At [85] 32, 18, 7	(222) Rn [86] 32, 18, 8	
7 28;18;32	(223) Fr [87] 18, 8, 1	(226.05) Ra [88] 18, 8, 2	[89-103] ** 32, 10, 2	(257) Rf [104] 32, 10, 2	(260) Ha [105] 32, 11, 2	[106]	[107]	[108]											
* LANTHANIDE SERIES			138.91 La [57] 18, 9, 2	140.12 Ce [58] 20, 8, 2	140.12 Pr [59] 21, 8, 2	144.24 Nd [60] 22, 8, 2	(145) Pm [61] 23, 8, 2	150.35 Sm [62] 24, 8, 2	151.96 Eu [63] 25, 8, 2	157.25 Gd [64] 25, 9, 2	158.924 Tb [65] 27, 8, 2	162.50 Dy [66] 28, 8, 2	164.930 Ho [67] 29, 8, 2	167.26 Er [68] 30, 8, 2	168.934 Tm [69] 31, 8, 2	173.04 Yb [70] 32, 8, 2	174.97 Lu [71] 32, 9, 2		
** ACTINIDE SERIES			(227) Ac [89] 18, 9, 2	232.038 Th [90] 18, 10, 2	(231) Pa [91] 20, 9, 2	238.03 U [92] 21, 9, 2	(237) Np [93] 23, 8, 2	(242) Pu [94] 24, 8, 2	(243) Am [95] 25, 8, 2	(245) Cm [96] 25, 9, 2	(245) Bk [97] 26, 9, 2	(248) Cf [98] 28, 8, 2	(253) Es [99] 29, 8, 2	(254) Fm [100] 30, 8, 2	(256) Md [101] 1	(253) No [102] 1	(257) Lw [103] 1		

### Elemental Valences

ATOMIC #	ELEMENT	VALENCE	SYMBOL	ATOMIC #	ELEMENT	VALENCE	SYMBOL
1	Hydrogen	1	H	20	Calcium	2	Ca
6	Carbon	4	C	23	Vanadium	2	V
7	Nitrogen	5	N	24	Chromium	1	Cr
8	Oxygen	6	O	25	Manganese	2	Mn
9	Flourine	7	F	26	Iron	2	Fe
11	Sodium	1	Na	27	Cobalt	2	Co
12	Magnesium	2	Mg	29	Copper	1	Cu
14	Silicon	4	Si	30	Zinc	2	Zn
15	Phosphorus	5	P	32	Germanium	4	Ge
16	Sulfur	6	S	34	Selenium	6	Se
17	Chlorine	7	Cl	42	Molybdenum	1	Mo
19	Potassium	1	K	53	Iodine	7	I