

Valences of the Elements

NUMBER	SYMBOL	ELEMENT	VALENCE
1	H	Hydrogen	1, 0, -1
2	He	Helium	0
3	Li	Lithium	1, -1
4	Be	Beryllium	2
5	B	Boron	3, 2, 1
6	C	Carbon	4, 3, 2, 1, -1, -2, -4
7	N	Nitrogen	5, 4, 3, 2, 1, 0, -1, -2, -3
8	O	Oxygen	2, 1, 0, -1, -2
9	F	Fluorine	0, -1
10	Ne	Neon	0
11	Na	Sodium	1, -1
12	Mg	Magnesium	2
13	Al	Aluminum	3, 1
14	Si	Silicon	4, 3, 2, 1, -1, -2, -4
15	P	Phosphorus	5, 4, 3, 2, 1, 0, -1, -2, -3
16	S	Sulfur	6, 5, 4, 3, 2, 1, 0, -1, -2
17	Cl	Chlorine	6, 5, 4, 3, 2, 1, 0, -1, -2
18	Ar	Argon	0
19	K	Potassium	1, -1
20	Ca	Calcium	2
21	Sc	Scandium	3, 2, 1
22	Ti	Titanium	4, 3, 2, 0, -1, -2
23	V	Vanadium	5, 4, 3, 2, 1, 0, -1, -2
24	Cr	Chromium	6, 5, 4, 3, 2, 1, 0, -1, -2, -3, -4
25	Mn	Manganese	7, 6, 5, 4, 3, 2, 1, 0, -1, -2, -3
26	Fe	Iron	6, 5, 4, 3, 2, 1, 0, -1, -2
27	Co	Cobalt	5, 4, 3, 2, 1, 0, -1
28	Ni	Nickel	6, 4, 3, 2, 1, 0, -1
29	Cu	Copper	4, 3, 2, 1, 0
30	Zn	Zinc	2, 1, 0
31	Ga	Gallium	3, 2, 1
32	Ge	Germanium	4, 3, 2, 1
33	As	Arsenic	5, 3, 2, -3
34	Se	Selenium	6, 4, 2, 1, -2
35	Br	Bromine	7, 5, 4, 3, 1, 0, -1
36	Kr	Krypton	2, 0
37	Rb	Rubidium	1, -1
38	Sr	Strontium	2
39	Y	Yttrium	3, 2
40	Zr	Zirconium	4, 3, 2, 1, 0, -2
41	Nb	Niobium	5, 4, 3, 2, 1, 0, -1, -3
42	Mo	Molybdenum	6, 5, 4, 3, 2, 1, 0, -1, -2
43	Tc	Technetium	7, 6, 5, 4, 3, 2, 1, 0, -1, -3
44	Ru	Ruthenium	8, 7, 6, 5, 4, 3, 2, 1, 0, -2
45	Rh	Rhodium	6, 5, 4, 3, 2, 1, 0, -1

Values in **BOLD** are common valences.

Values in *italics* are predicted.

Valences of the Elements

NUMBER	SYMBOL	ELEMENT	VALENCE
46	Pd	Palladium	4, 2, 0
47	Ag	Silver	3, 2, 1, 0
48	Cd	Cadmium	2, 1
49	In	Indium	3, 2, 1
50	Sn	Tin	4, 2, -4
51	Sb	Antimony	5, 3, -3
52	Te	Tellurium	6, 5, 4, 2, 1, -2
53	I	Iodine	7, 5, 3, 1, 0, -1
54	Xe	Xenon	8, 6, 4, 3, 2, 0
55	Cs	Cesium	1, -1
56	Ba	Barium	2
57	La	Lanthanum	3, 2
58	Ce	Cerium	4, 3, 2
59	Pr	Praseodymium	4, 3, 2
60	Nd	Neodymium	4, 3, 2
61	Pm	Promethium	3
62	Sm	Samarium	3, 2
63	Eu	Europium	3, 2
64	Gd	Gadolinium	3, 2, 1
65	Tb	Terbium	4, 3, 1
66	Dy	Dysprosium	4, 3, 2
67	Ho	Holmium	3, 2
68	Er	Erbium	3
69	Tm	Thulium	3, 2
70	Yb	Ytterbium	3, 2
71	Lu	Lutetium	3
72	Hf	Hafnium	4, 3, 2, 1
73	Ta	Tantalum	5, 4, 3, 2, 1, -1, -3
74	W	Tungsten	6, 5, 4, 3, 2, 1, 0, -1, -2, -4
75	Re	Rhenium	7, 6, 5, 4, 3, 2, 1, 0, -1, -3
76	Os	Osmium	8, 7, 6, 5, 4, 3, 2, 1, 0, -2
77	Ir	Iridium	6, 5, 4, 3, 2, 1, 0, -1
78	Pt	Platinum	6, 5, 4, 2, 0
79	Au	Gold	7, 5, 3, 2, 1, 0, -1
80	Hg	Mercury	2, 1
81	Tl	Thallium	3, 1
82	Pb	Lead	4, 2
83	Bi	Bismuth	5, 3, 1, -3
84	Po	Polonium	6, 4, 2, -2
85	At	Astatine	7, 5, 3, 1, -1
86	Rn	Radon	2, 0
87	Fr	Francium	1
88	Ra	Radium	2
89	Ac	Actinium	3
90	Th	Thorium	4, 3, 2

Values in **BOLD** are common valences.

Values in *italics* are predicted.

Valences of the Elements

NUMBER	SYMBOL	ELEMENT	VALENCE
91	Pa	Protactinium	5 , 4, 3
92	U	Uranium	6 , 5, 4, 3, 2
93	Np	Neptunium	7 , 6, 5, 4, 3, 2
94	Pu	Plutonium	7 , 6, 5, 4 , 3, 2
95	Am	Americium	7, 6, 5, 4, 3 , 2
96	Cm	Curium	<i>6</i> , 5, 4, 3 , 2
97	Bk	Berkelium	4, 3 , 2
98	Cf	Californium	5, 4, 3 , 2
99	Es	Einsteinium	4, 3 , 2
100	Fm	Fermium	4, 3 , 2
101	Md	Mendelevium	3 , 2, 1
102	No	Nobelium	3, 2
103	Lr	Lawrencium	3 , 2
104	Rf	Rutherfordium	4 , 3
105	Db	Dubnium	5, 4
106	Sg	Seaborgium	<i>6</i> , 5, 4
107	Bh	Bohrium	7, 6, 5, 4, 3
108	Hs	Hassium	<i>8</i> , 7, 4, 3, 2
109	Mt	Meitnerium	<i>6</i> , 5, 4, 3, 2, 1
110	Ds	Darmstadtium	<i>6</i> , 5, 4, 3, 2, 1
111	Rg	Roentgenium	3, -1
112	Cn	Copernicium	2, 1
113	Uut	Ununtrium	1
114	Fl	Flerovium	2
115	Uup	Ununpentium	3, 1
116	Lv	Livermorium	4, 2
117	Uus	Ununseptium	unknown
118	Uuo	Ununoctium	<i>8</i> , 6, 4, 2

Values in **BOLD** are common valences.
 Values in *italics* are predicted.