

## **1.8 Table of atomic weights to five significant figures**

The following 1991 Table of Standard Atomic Weights Abridged to Five Significant Figures was prepared for publication by J. Cesario, N. N. Greenwood and H. S. Peiser (Commission on Atomic Weights and Isotopic Abundances, Inorganic Chemistry Division). *Chem. International* **15** (1993) 128-129.

Atomic weights are here quoted to five significant figures unless the dependable accuracy is more limited by either the combined uncertainties of the best published atomic-weight determinations, or by the variability of isotopic composition in normal terrestrial occurrences (the latter applied to elements annotated r). The last significant value of each tabulated value is considered reliable to  $\pm 1$  except when a larger single-digit uncertainty is inserted in parentheses following the atomic weight. Neither the highest nor the lowest actual atomic weight of any normal sample is thought likely to differ from the tabulated value by more than the assigned uncertainty. However, the tabulated values do not apply either to samples of highly exceptional isotopic composition arising from most unusual geological occurrences (for elements annotated g) or to those whose isotopic composition has been artificially altered. Such might even be found in commerce without disclosure of that modification (for elements annotated m). Elements annotated by an asterisk (\*) have no stable isotope and are generally represented in this Table by just one of the element's commonly known radioisotopes, with a corresponding relative atomic mass in the atomic weight column. However, three such elements (Th, Pa and U) do have a characteristic terrestrial isotopic composition, and for these an atomic weight is tabulated. For more detailed information users should refer to the full IUPAC Table of Standard Atomic Weights, as is found in the biennial reports of the Commission of Atomic Weights and Isotopic Abundances. The most recent table was published in PAC **64** (1992) 1519-1534.

1991 Table of standard atomic weights abridged to five significant figures. Scaled to the relative atomic mass,  $A_r(^{12}\text{C})=12$ .

	Name	Symbol	Atomic weight	Annotations
1	Hydrogen	H	1.0079	g m
2	Helium	He	4.0026	
3	Lithium	Li	6.94(12)	g m r
4	Beryllium	Be	9.0122	
5	Boron	B	10.811(5)	g m r
6	Carbon	C	12.011	g r
7	Nitrogen	N	14.007	
8	Oxygen	O	15.999	
9	Fluorine	F	18.998	
10	Neon	Ne	20.180	m
11	Sodium (Natrium)	Na	22.990	
12	Magnesium	Mg	24.305	
13	Aluminium	Al	26.982	
14	Silicon	Si	28.086	
15	Phosphorus	P	30.974	
16	Sulfur	S	32.066(6)	g r
17	Chlorine	Cl	35.453	m
18	Argon	Ar	39.948	g r
19	Potassium (Kalium)	K	39.098	g
20	Calcium	Ca	40.078(4)	g
21	Scandium	Sc	44.956	
22	Titanium	Ti	47.88(3)	
23	Vanadium	V	50.942	
24	Chromium	Cr	51.996	
25	Manganese	Mn	54.938	
26	Iron	Fe	55.847(3)	
27	Cobalt	Co	58.933	
28	Nickel	Ni	58.693	
29	Copper	Cu	63.546(3)	
30	Zinc	Zn	65.39(2)	
31	Gallium	Ga	69.723	
32	Germanium	Ge	72.61(2)	
33	Arsenic	As	74.922	
34	Selenium	Se	78.96(3)	
35	Bromine	Br	79.904	
36	Krypton	Kr	83.80	g m
37	Rubidium	Rb	85.468	
38	Strontium	Sr	87.62	g r
39	Yttrium	Y	88.906	
40	Zirconium	Zr	91.224(2)	g

41	Niobium	Nb	92.906	
42	Molybdenum	Mo	95.94	g
43	Technetium*	<sup>99</sup> Tc	98.906	
44	Ruthenium	Ru	101.07(2)	g
45	Rhodium	Rh	102.91	
46	Palladium	Pd	106.42	g
47	Silver	Ag	107.87	
48	Cadmium	Cd	112.41	
49	Indium	In	114.82	
50	Tin	Sn	118.71	
51	Antimony (Stibium) Sb		121.76(3)	g
52	Tellurium	Te	127.60	g
53	Iodine	I	126.90	
54	Xenon	Xe	131.29(2)	g m
55	Caesium	Cs	132.91	
56	Barium	Ba	137.33	
57	Lanthanum	La	138.91	
58	Cerium	Ce	140.12	g
59	Praseodymium	Pr	140.91	
60	Neodymium	Nd	144.24(3)	g
61	Promethium*	<sup>147</sup> Pm	146.92	
62	Samarium	Sm	150.36(3)	g
63	Europium	Eu	151.96	g
64	Gadolinium	Gd	157.25(3)	g
65	Terbium	Tb	158.93	
66	Dysprosium	Dy	162.50(3)	g
67	Holmium	Ho	164.93	
68	Erbium	Er	167.26(3)	g
69	Thulium	Tm	168.93	
70	Ytterbium	Yb	173.04(3)	
71	Lutetium	Lu	174.97	g
72	Hafnium	Hf	178.49(2)	
73	Tantalum	Ta	180.95	
74	Tungsten (Wolfram) W		183.84	
75	Rhenium	Re	186.21	
76	Osmium	Os	190.23(3)	g
77	Iridium	Ir	192.22(3)	
78	Platinum	Pt	195.08(3)	
79	Gold	Au	196.97	
80	Mercury	Hg	200.59(2)	
81	Thallium	Tl	204.38	
82	Lead	Pb	207.2	g r
83	Bismuth	Bi	208.98	
84	Polonium*	<sup>210</sup> Po	209.98	
85	Astatine*	<sup>210</sup> At	209.99	
86	Radon*	<sup>222</sup> Rn	222.02	
87	Francium*	<sup>223</sup> Fr	223.02	

88	Radium *	<sup>226</sup> Ra	226.03
89	Actinium *	<sup>227</sup> Ac	227.03
90	Thorium *	Th	232.04
91	Protactinium *	Pa	231.04
92	Uranium *	U	238.03
93	Neptunium *	<sup>237</sup> Np	237.05
94	Plutonium *	<sup>239</sup> Pu	239.05
95	Americium *	<sup>241</sup> Am	241.06
96	Curium *	<sup>244</sup> Cm	244.06
97	Berkelium *	<sup>249</sup> Bk	249.08
98	Californium *	<sup>252</sup> Cf	252.08
99	Einsteinium *	<sup>252</sup> Es	252.08
100	Fermium *	<sup>257</sup> Fm	257.10
101	Mendelevium *	<sup>258</sup> Md	258.10
102	Nobelium *	<sup>259</sup> No	259.10
103	Lawrencium *	<sup>262</sup> Lr	262.11

g