



# WebElements: the periodic table on the world-wide web

<http://www.webelements.com/>

1	hydrogen 1 <b>H</b>	2	helium 2 <b>He</b>																																		
3	lithium 3 <b>Li</b>	4	beryllium 4 <b>Be</b>	5	boron 5 <b>B</b>	6	carbon 6 <b>C</b>	7	nitrogen 7 <b>N</b>	8	oxygen 8 <b>O</b>	9	fluorine 9 <b>F</b>	10	neon 10 <b>Ne</b>																						
11	sodium 11 <b>Na</b>	12	magnesium 12 <b>Mg</b>	13	aluminium 13 <b>Al</b>	14	silicon 14 <b>Si</b>	15	phosphorus 15 <b>P</b>	16	sulfur 16 <b>S</b>	17	chlorine 17 <b>Cl</b>	18	argon 18 <b>Ar</b>																						
19	potassium 19 <b>K</b>	20	calcium 20 <b>Ca</b>	21	scandium 21 <b>Sc</b>	22	titanium 22 <b>Ti</b>	23	vanadium 23 <b>V</b>	24	chromium 24 <b>Cr</b>	25	manganese 25 <b>Mn</b>	26	iron 26 <b>Fe</b>	27	cobalt 27 <b>Co</b>	28	nickel 28 <b>Ni</b>	29	copper 29 <b>Cu</b>	30	zinc 30 <b>Zn</b>	31	gallium 31 <b>Ga</b>	32	germanium 32 <b>Ge</b>	33	arsenic 33 <b>As</b>	34	selenium 34 <b>Se</b>	35	bromine 35 <b>Br</b>	36	krypton 36 <b>Kr</b>		
37	rubidium 37 <b>Rb</b>	38	strontium 38 <b>Sr</b>	39	yttrium 39 <b>Y</b>	40	zirconium 40 <b>Zr</b>	41	niobium 41 <b>Nb</b>	42	molybdenum 42 <b>Mo</b>	43	technetium 43 <b>Tc</b>	44	ruthenium 44 <b>Ru</b>	45	rhodium 45 <b>Rh</b>	46	palladium 46 <b>Pd</b>	47	silver 47 <b>Ag</b>	48	cadmium 48 <b>Cd</b>	49	indium 49 <b>In</b>	50	tin 50 <b>Sn</b>	51	antimony 51 <b>Sb</b>	52	tellurium 52 <b>Te</b>	53	iodine 53 <b>I</b>	54	xenon 54 <b>Xe</b>		
55	caesium 55 <b>Cs</b>	56	barium 56 <b>Ba</b>	57-70	lanthanum 57 <b>La</b> cerium 58 <b>Ce</b> praseodymium 59 <b>Pr</b> neodymium 60 <b>Nd</b> promethium 61 <b>Pm</b> samarium 62 <b>Sm</b> europium 63 <b>Eu</b> gadolinium 64 <b>Gd</b> terbium 65 <b>Tb</b> dysprosium 66 <b>Dy</b> holmium 67 <b>Ho</b> erbium 68 <b>Er</b> thulium 69 <b>Tm</b> ytterbium 70 <b>Yb</b>	71	lutetium 71 <b>Lu</b>	72	hafnium 72 <b>Hf</b>	73	tantalum 73 <b>Ta</b>	74	tungsten 74 <b>W</b>	75	rhenium 75 <b>Re</b>	76	osmium 76 <b>Os</b>	77	iridium 77 <b>Ir</b>	78	platinum 78 <b>Pt</b>	79	gold 79 <b>Au</b>	80	mercury 80 <b>Hg</b>	81	thallium 81 <b>Tl</b>	82	lead 82 <b>Pb</b>	83	bismuth 83 <b>Bi</b>	84	polonium 84 <b>Po</b>	85	astatine 85 <b>At</b>	86	radon 86 <b>Rn</b>
87	francium 87 <b>Fr</b>	88	radium 88 <b>Ra</b>	89-102	actinoids 89 <b>Ac</b> thorium 90 <b>Th</b> protactinium 91 <b>Pa</b> uranium 92 <b>U</b> neptunium 93 <b>Np</b> plutonium 94 <b>Pu</b> americium 95 <b>Am</b> curium 96 <b>Cm</b> berkelium 97 <b>Bk</b> californium 98 <b>Cf</b> einsteinium 99 <b>Es</b> fermium 100 <b>Fm</b> mendelevium 101 <b>Md</b> nobelium 102 <b>No</b>	103	lawrencium 103 <b>Lr</b>	104	rutherfordium 104 <b>Rf</b>	105	dubnium 105 <b>Db</b>	106	seaborgium 106 <b>Sg</b>	107	bohrium 107 <b>Bh</b>	108	hassium 108 <b>Hs</b>	109	meitnerium 109 <b>Mt</b>	110	darmstadtium 110 <b>Ds</b>	111	roentgenium 111 <b>Rg</b>	112	unbinilium 112 <b>Uub</b>	113	ununilium 113 <b>Uut</b>	114	ununquadium 114 <b>Uuq</b>	115	ununpentium 115 <b>Uup</b>	116	ununhexium 116 <b>Uuh</b>	117	ununseptium 117 <b>Uus</b>	118	ununoctium 118 <b>Uuo</b>

Key:  
 element name  
 atomic number  
**symbol**  
 atomic weight (mean relative mass)

\*lanthanoids

lanthanum	cerium	praseodymium	neodymium	promethium	samarium	europium	gadolinium	terbium	dysprosium	holmium	erbium	thulium	ytterbium
57	58	59	60	61	62	63	64	65	66	67	68	69	70
<b>La</b>	<b>Ce</b>	<b>Pr</b>	<b>Nd</b>	<b>Pm</b>	<b>Sm</b>	<b>Eu</b>	<b>Gd</b>	<b>Tb</b>	<b>Dy</b>	<b>Ho</b>	<b>Er</b>	<b>Tm</b>	<b>Yb</b>
138.91	140.12	140.91	144.24	[145]	150.36	151.96	157.25	158.93	162.50	164.93	167.26	168.93	173.04
actinium	thorium	protactinium	uranium	neptunium	plutonium	americium	curium	berkelium	californium	einsteinium	fermium	mendelevium	nobelium
89	90	91	92	93	94	95	96	97	98	99	100	101	102
<b>Ac</b>	<b>Th</b>	<b>Pa</b>	<b>U</b>	<b>Np</b>	<b>Pu</b>	<b>Am</b>	<b>Cm</b>	<b>Bk</b>	<b>Cf</b>	<b>Es</b>	<b>Fm</b>	<b>Md</b>	<b>No</b>
[227]	232.04	231.04	238.03	[237]	[244]	[243]	[247]	[247]	[251]	[252]	[257]	[258]	[259]

\*\*actinoids

Symbols and names: the symbols and names of the elements, and their spellings are those recommended by the International Union of Pure and Applied Chemistry (IUPAC - <http://www.iupac.org/>). Names have yet to be proposed for the most recently discovered elements 111-112 and 114 so those used here are IUPAC's temporary systematic names. In the USA and some other countries, the spellings aluminium and caesium are normal while in the UK and elsewhere the common spelling is sulphur.

Group labels: the numeric system (1-18) used here is the current IUPAC convention.

Atomic weights (mean relative masses): Apart from the heaviest elements, these are the IUPAC 2001 values and given to 5 significant figures. Elements for which the atomic weight is given within square brackets have no stable nuclides and are represented by the element's longest lived isotope.

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# ATOMIC MASSES OF THE ELEMENTS 1999 - IUPAC

Name	Sym.	No.	Atomic Mass	Name	Sym.	No.	Atomic Mass
Actinium	Ac	89	[227]	Nobelium	No	102	[259]
Aluminium	Al	13	26.981538(2)	Osmium	Os	76	190.23(3)
Americium	Am	95	[243]	Oxygen	O	8	15.9994(3)
Antimony	Sb	51	121.760(1)	Palladium	Pd	46	106.42(1)
Argon	Ar	18	39.948(1)	Phosphorus	P	15	30.973761(2)
Arsenic	As	33	74.92160(2)	Platinum	Pt	78	195.078(2)
Astatine	At	85	[210]	Plutonium	Pu	94	[244]
Barium	Ba	56	137.327(7)	Polonium	Po	84	[209]
Berkelium	Bk	97	[247]	Potassium	K	19	39.0983(1)
Beryllium	Be	4	9.012182(3)	Praseodymium	Pr	59	140.90765(2)
Bismuth	Bi	83	208.98038(2)	Promethium	Pm	61	[145]
Bohrium	Bh	107	[264]	Protactinium	Pa	91	231.03588(2)
Boron	B	5	10.811(7)	Radium	Ra	88	[226]
Bromine	Br	35	79.904(1)	Radon	Rn	86	[222]
Cadmium	Cd	48	112.411(8)	Rhenium	Re	75	186.207(1)
Caesium	Cs	55	132.90545(2)	Rhodium	Rh	45	102.90550(2)
Calcium	Ca	20	40.078(4)	Rubidium	Rb	37	85.4678(3)
Californium	Cf	98	[251]	Ruthenium	Ru	44	101.07(2)
Carbon	C	6	12.0107(8)	Rutherfordium	Rf	104	[261]
Cerium	Ce	58	140.116(1)	Samarium	Sm	62	150.36(3)
Chlorine	Cl	17	35.453(2)	Scandium	Sc	21	44.955910(8)
Chromium	Cr	24	51.9961(6)	Seaborgium	Sg	106	[266]
Cobalt	Co	27	58.933200(9)	Selenium	Se	34	78.96(3)
Copper	Cu	29	63.546(3)	Silicon	Si	14	28.0855(3)
Curium	Cm	96	[247]	Silver	Ag	47	107.8682(2)
Dubnium	Db	105	[262]	Sodium	Na	11	22.989770(2)
Dysprosium	Dy	66	162.50(3)	Strontium	Sr	38	87.62(1)
Einsteinium	Es	99	[252]	Sulfur	S	16	32.065(5)
Erbium	Er	68	167.259(3)	Tantalum	Ta	73	180.9479(1)
Europium	Eu	63	151.964(1)	Technetium	Tc	43	[98]
Fermium	Fm	100	[257]	Tellurium	Te	52	127.60(3)
Fluorine	F	9	18.9984032(5)	Terbium	Tb	65	158.92534(2)
Francium	Fr	87	[223]	Thallium	Tl	81	204.3833(2)
Gadolinium	Gd	64	157.25(3)	Thorium	Th	90	232.0381(1)
Gallium	Ga	31	69.723(1)	Thulium	Tm	69	168.93421(2)
Germanium	Ge	32	72.64(1)	Tin	Sn	50	118.710(7)
Gold	Au	79	196.96655(2)	Titanium	Ti	22	47.867(1)
Hafnium	Hf	72	178.49(2)	Tungsten	W	74	183.84(1)
Hassium	Hs	108	[277]	Ununbium	Uub	112	[285]
Helium	He	2	4.002602(2)	Ununnilium	Uun	110	[281]
Holmium	Ho	67	164.93032(2)	Ununquadium	Uuq	114	[289]
Hydrogen	H	1	1.00794(7)	Ununonium	Uuu	111	[272]
Indium	In	49	114.818(3)	Uranium	U	92	238.02891(3)
Iodine	I	53	126.90447(3)	Vanadium	V	23	50.9415(1)
Iridium	Ir	77	192.217(3)	Xenon	Xe	54	131.293(6)
Iron	Fe	26	55.845(2)	Ytterbium	Yb	70	173.04(3)
Krypton	Kr	36	83.80(1)	Yttrium	Y	39	88.90585(2)
Lanthanum	La	57	138.9055(2)	Zinc	Zn	30	65.39(2)
Lawrencium	Lr	103	[262]	Zirconium	Zr	40	91.224(2)
Lead	Pb	82	207.2(1)				
Lithium	Li	3	[6.941(2)]				
Lutetium	Lu	71	174.967(1)				
Magnesium	Mg	12	24.3050(6)				
Manganese	Mn	25	54.938049(9)				
Meitnerium	Mt	109	[268]				
Mendelevium	Md	101	[258]				
Mercury	Hg	80	200.59(2)				
Molybdenum	Mo	42	95.94(1)				
Neodymium	Nd	60	144.24(3)				
Neon	Ne	10	20.1797(6)				
Neptunium	Np	93	[237]				
Nickel	Ni	28	58.6934(2)				
Niobium	Nb	41	92.90638(2)				
Nitrogen	N	7	14.0067(2)				

[longest lived isotope]

(error in the last digit)

eg.

65.39(2) = 65.39 ± 0.02

<http://www.chem.qmw.ac.uk/iupac/AtWt/>