_																	
1 H hydrogen	2											13	14	15	16	17	2 He
1.007 94(7)	2		Key:									13	14	15	10	17	4.002 602(2)
3	4	Ī	atomic numb	or								5	6	7	8	9	10
	-											_	•	NI NI		F	
Li	Ве		Symbo	DI								В	C	N	0	Г	Ne
lithium	beryllium		name									boron	carbon	nitrogen	oxygen	fluorine	neon
6.941(2)	9.012 182(3)	l	standard atomic we	eignt								10.811(7)	12.0107(8)	14.0067(2)	15.9994(3)	18.998 4032(5)	20.1797(6)
11	12											13	14	15	16	17	18
Na	Mg											ΑI	Si	Р	S	CI	Ar
sodium	magnesium	3	4	5	6	7	8	9	10	11	12	aluminium	silicon	phosphorus	sulfur	chlorine	argon
22.989 769 28(2)	24.3050(6)											26.981 538 6(8)	28.0855(3)	30.973 762(2)	32.065(5)	35.453(2)	39.948(1)
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Со	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
potassium	calcium	scandium	attack and the second														
			titanium	vanadium	chromium	manganese	iron	cobalt	nickel	copper	zinc	gallium	germanium	arsenic	selenium	bromine	krypton
39.0983(1)	40.078(4)	44.955 912(6)	47.867(1)	50.9415(1)	51.9961(6)	54.938 045(5)	55.845(2)	58.933 195(5)	58.6934(2)	63.546(3)	65.409(4)	69.723(1)	72.64(1)	74.921 60(2)	78.96(3)	79.904(1)	83.798(2)
37	38	44.955 912(6) 39	47.867(1) 40	50.9415(1)	51.9961(6) 42	54.938 045(5) 43	55.845(2) 44	58.933 195(5) 45	58.6934(2) 46	63.546(3) 47	65.409(4) 48		72.64(1)	74.921 60(2) 51	78.96(3) 52		83.798(2) 54
37 Rb	38 Sr	39 Y	47.867(1) 40 Zr	50.9415(1) 41 Nb	51.9961(6) 42 Mo	54.938 045(5) 43 TC	55.845(2) 44 Ru	58.933 195(5) 45 Rh	58.6934(2) 46 Pd	63.546(3) 47 Ag	48 Cd	69.723(1) 49 In	72.64(1) 50 Sn	74.921 60(2) 51 Sb	^{78.96(3)} 52 Te	79.904(1) 53	83.798(2)
37 Rb rubidium	38 Sr strontium	44.955 912(6) 39 Y yttrium	47.867(1) 40 Zr zirconium	50.9415(1) 41 Nb niobium	51.9961(6) 42 Mo molybdenum	54.938 045(5) 43 TC technetium	55.845(2) 44 Ru ruthenium	58.933 195(5) 45 Rh rhodium	58.6934(2) 46 Pd palladium	63.546(3) 47 Ag silver	65.409(4) 48 Cd cadmium	69.723(1) 49 In indium	72.64(1) 50 Sn tin	74.921 60(2) 51 Sb antimony	78.96(3) 52 Te tellurium	79.904(1) 53 I iodine	83.798(2) 54 Xe xenon
37 Rb	38 Sr strontium 87.62(1)	39 Y	47.867(1) 40 Zr	50.9415(1) 41 Nb	51.9961(6) 42 Mo	54.938 045(5) 43 TC	55.845(2) 44 Ru	58.933 195(5) 45 Rh	58.6934(2) 46 Pd	63.546(3) 47 Ag	48 Cd	69.723(1) 49 In	72.64(1) 50 Sn	74.921 60(2) 51 Sb antimony 121.760(1)	^{78.96(3)} 52 Te	79.904(1) 53	83.798(2) 54 Xe xenon 131.293(6)
37 Rb rubidium 85.4678(3)	38 Sr strontium	44.955 912(6) 39 Y yttrium 88.905 85(2)	47.867(1) 40 Zr zirconium 91.224(2)	50.9415(1) 41 Nb niobium 92.906 38(2)	51.9961(6) 42 Mo molybdenum 95.94(2)	54.938 045(5) 43 TC technetium [97.9072]	55.845(2) 44 Ru ruthenium 101.07(2)	58.933 195(5) 45 Rh rhodium 102.905 50(2)	58.6934(2) 46 Pd palladium 106.42(1)	63.546(3) 47 Ag silver 107.8682(2) 79	65.409(4) 48 Cd cadmium 112.411(8) 80	69.723(1) 49 In indium 114.818(3) 81	72.64(1) 50 Sn tin 118.710(7)	74.921 60(2) 51 Sb antimony	78.96(3) 52 Te tellurium 127.60(3)	79.904(1) 53 I iodine 126.904 47(3)	83.798(2) 54 Xe xenon
37 Rb rubidium 85.4678(3) 55	38 Sr strontium 87.62(1) 56	44.955 912(6) 39 Y yttrium 88.905 85(2) 57-71	47.867(1) 40 Zr zirconium 91.224(2) 72	50.9415(1) 41 Nb niobium 92.906 38(2) 73	51.9961(6) 42 Mo molybdenum 95.94(2) 74	54.938 045(5) 43 TC technetium [97.9072] 75	55.845(2) 44 Ru ruthenium 101.07(2) 76	58.933 195(5) 45 Rh rhodium 102.905 50(2) 77	58.6934(2) 46 Pd palladium 106.42(1) 78	63.546(3) 47 Ag silver 107.8682(2)	65.409(4) 48 Cd cadmium 112.411(8) 80 Hg	69.723(1) 49 In indium 114.818(3)	72.64(1) 50 Sn tin 118.710(7) 82	74.921 60(2) 51 Sb antimony 121.760(1) 83	78.96(3) 52 Te tellurium 127.60(3) 84	79.904(1) 53	83.798(2) 54 Xe xenon 131.293(6) 86
37 Rb rubidium 85.4678(3) 55 Cs	38 Sr strontium 87.62(1) 56 Ba	44.955 912(6) 39 Y yttrium 88.905 85(2) 57-71	47.867(1) 40 Zr zirconium 91.224(2) 72 Hf	50.9415(1) 41 Nb niobium 92.906 38(2) 73 Ta	51.9961(6) 42 MO molybdenum 95.94(2) 74	54.938 045(5) 43 TC technetium [97.9072] 75 Re	55.845(2) 44 Ru ruthenium 101.07(2) 76 Os	58.933 195(5) 45 Rh rhodium 102.905 50(2) 77 Ir	58.6934(2) 46 Pd palladium 106.42(1) 78 Pt	63.546(3) 47 Ag silver 107.8682(2) 79 Au	65.409(4) 48 Cd cadmium 112.411(8) 80	69.723(1) 49 In indium 114.818(3) 81	72.64(1) 50 Sn tin 118.710(7) 82 Pb	74.921 60(2) 51 Sb antimony 121.760(1) 83 Bi	78.96(3) 52 Te tellurium 127.60(3) 84 Po	79.904(1) 53 I iodine 126.904 47(3) 85 At	83.798(2) 54 Xe xenon 131.293(6) 86 Rn
37 Rb rubidium 85.4678(3) 55 Cs caesium	38 Sr strontium 87.62(1) 56 Ba barium	44.955 912(6) 39 Y yttrium 88.905 85(2) 57-71	47.867(1) 40 Zr zirconium 91.224(2) 72 Hf hafnium	50.9415(1) 41 Nb niobium 92.906 38(2) 73 Ta tantalum	51.9961(6) 42 Mo molybdenum 95.94(2) 74 W tungsten	54.938 045(5) 43 TC technetium [97.9072] 75 Re rhenium	55.845(2) 44 Ru ruthenium 101.07(2) 76 Os osmium	58.933 195(5) 45 Rh rhodium 102.905 50(2) 77 Ir iridium	58.6934(2) 46 Pd palladium 106.42(1) 78 Pt platinum	63.546(3) 47 Ag silver 107.8682(2) 79 Au gold	65.409(4) 48 Cd cadmium 112.411(8) 80 Hg mercury	69.723(1) 49 In indium 114.818(3) 81 TI thallium	72.64(1) 50 Sn tin 118.710(7) 82 Pb lead	74.921 60(2) 51 Sb antimony 121.760(1) 83 Bi bismuth	78.96(3) 52 Te tellurium 127.60(3) 84 Po polonium	79.904(1) 53 I iodine 126.904 47(3) 85 At astatine	83.798(2) 54 Xe xenon 131.293(6) 86 Rn radon
37 Rb rubidium 85.4678(3) 55 Cs caesium 132.905 451 9(2)	38 Sr strontium 87.62(1) 56 Ba barium 137.327(7)	44.955 912(6) 39 Y yttrium 88.905 85(2) 57-71 lanthanoids	47.867(1) 40 Zr zirconium 91.224(2) 72 Hf hafnium 178.49(2)	50.9415(1) 41 Nb niobium 92.906 38(2) 73 Ta tantalum 180.947 88(2)	51.9961(6) 42 Mo molybdenum 95.94(2) 74 W tungsten 183.84(1) 106	54.938 045(5) 43 Tc technetium [97.9072] 75 Re rhenium 186.207(1)	55.845(2) 44 Ru ruthenium 101.07(2) 76 Os osmium 190.23(3)	58.933 195(5) 45 Rh rhodium 102.905 50(2) 77 ir iridium 192.217(3)	58.6934(2) 46 Pd palladium 106.42(1) 78 Pt platinum 195.084(9)	63.546(3) 47 Ag silver 107.8682(2) 79 Au gold 196.966 569(4) 111	65.409(4) 48 Cd cadmium 112.411(8) 80 Hg mercury	69.723(1) 49 In indium 114.818(3) 81 TI thallium	72.64(1) 50 Sn tin 118.710(7) 82 Pb lead	74.921 60(2) 51 Sb antimony 121.760(1) 83 Bi bismuth	78.96(3) 52 Te tellurium 127.60(3) 84 Po polonium	79.904(1) 53 I iodine 126.904 47(3) 85 At astatine	83.798(2) 54 Xe xenon 131.293(6) 86 Rn radon
37 Rb rubidium 85.4678(3) 55 Cs caesium 132.905 451 9(2) 87	38 Sr strontium 87.62(1) 56 Ba barium 137.327(7) 88	44.955 912(6) 39 Y yttrium 88.905 85(2) 57-71 lanthanoids 89-103	47.867(1) 40 Zr zirconium 91.224(2) 72 Hf hafnium 178.49(2) 104	50.9415(1) 41 Nb niobium 92.906 38(2) 73 Ta tantalum 180.947 88(2)	51.9961(6) 42 MO molybdenum 95.94(2) 74 W tungsten 183.84(1)	54.938 045(5) 43 TC technetium [97.9072] 75 Re rhenium 186.207(1) 107	55.845(2) 44 Ru ruthenium 101.07(2) 76 Os osmium 190.23(3) 108	58.933 195(5) 45 Rh rhodium 102.905 50(2) 77 ir iridium 192.217(3) 109	58.6934(2) 46 Pd palladium 106.42(1) 78 Pt platinum 195.084(9) 110	63.546(3) 47 Ag silver 107.8682(2) 79 Au gold 196.966 569(4)	65.409(4) 48 Cd cadmium 112.411(8) 80 Hg mercury	69.723(1) 49 In indium 114.818(3) 81 TI thallium	72.64(1) 50 Sn tin 118.710(7) 82 Pb lead	74.921 60(2) 51 Sb antimony 121.760(1) 83 Bi bismuth	78.96(3) 52 Te tellurium 127.60(3) 84 Po polonium	79.904(1) 53 I iodine 126.904 47(3) 85 At astatine	83.798(2) 54 Xe xenon 131.293(6) 86 Rn radon



57	58	59	60	61	62	63	64	65	66	67	68	69	70	71
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu
lanthanum	cerium	praseodymium	neodymium	promethium	samarium	europium	gadolinium	terbium	dysprosium	holmium	erbium	thulium	ytterbium	lutetium
138.905 47(7)	140.116(1)	140.907 65(2)	144.242(3)	[145]	150.36(2)	151.964(1)	157.25(3)	158.925 35(2)	162.500(1)	164.930 32(2)	167.259(3)	168.934 21(2)	173.04(3)	174.967(1)
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr
actinium	thorium	protactinium	uranium	neptunium	plutonium	americium	curium	berkelium	californium	einsteinium	fermium	mendelevium	nobelium	lawrencium
[227]	232.038 06(2)	231.035 88(2)	238.028 91(3)	[237]	[244]	[243]	[247]	[247]	[251]	[252]	[257]	[258]	[259]	[262]

Notes

- 'Aluminum' and 'cesium' are commonly used alternative spellings for 'aluminium' and 'caesium'.
- IUPAC 2005 standard atomic weights (mean relative atomic masses) as approved at the 43rd IUPAC General Assembly in Beijing, China in August 2005 are listed with uncertainties in the last figure in parentheses [M. E. Wieser, Pure Appl. Chem., to be published]. These values correspond to current best knowledge of the elements in natural terrestrial sources. For elements that have no stable or long-lived nuclides, the mass number of the nuclide with the longest confirmed half-life is listed between square brackets.

[272]

- Elements with atomic numbers 112 and above have been reported but not fully authenticated.

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