Table 4.1. Revised June 2016 by D.E. Groom (LBNL). The atomic number (top left) is the number of protons in the nucleus. The atomic masses (bottom) of stable elements are weighted by isotopic abundances in the Earth's surface. Atomic masses are relative to the mass of <sup>12</sup>C, defined to be exactly 12 unified atomic mass units (u) (approx. g/mole). The exceptions are Th, Pa, and U, which have no stable isotopes but do have characteristic terrestrial compositions. Relative isotopic abundances often vary considerably, both in natural and commercial samples; this is reflected in the number of significant figures given for the mass. Masses may be found at http://physics.nist.gov/cgi-bin/Compositions/stand\_alone.pl . If there is no stable isotope the atomic mass of the most stable isotope is given in parentheses.

IUPAC announced verification of the discoveries of elements 113, 115, 117, and 118 in December 2015. Provisional names were assigned in June 2016. The 7th period of the periodic table is now complete.

1																	18	-
IA																	VIII	IA_
1 H																	2	He
hydrogen	2											13	14	15	16	17	heliu	am
1.008	IIA	_										IIIA	IVA	VA	VIA	VIIA	4.002	2602
3 Li	4 Be		DDD:									5 B	6 C	7 N	8 0	9 F	10	Ne
lithium	beryllium		PER.	IODIC	TABI	boron	carbon	nitrogen	oxygen	fluorine	neo	on						
6.94	9.012182						10.81	12.0107	14.007	15.999	18.998403163	20.17	797					
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 CI	18	Ar
sodium	magnesium	3	4	5	6	7	8	9	10	11	12	aluminum	silicon	phosphorus	sulfur	chlorine	argo	on
22.98976928	24.305	IIIB	IVB	VB	VIB	VIIB		VIII		IB	IIB	26.9815385	28.085	30.973761998	32.06	35.45	39.9	148
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36	Kr
potassium	calcium	scandium	titanium	vanadium	chromium	manganese	iron	cobalt	nickel	copper	zinc	gallium	germanium	arsenic	selenium	bromine	kryp	ton
39.0983	40.078	44.955908	47.867	50.9415	51.9961	54.938044	55.845	58.933195	58.6934	63.546	65.38	69.723	72.630	74.921595	78.971	79.904	83.7	98
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54	Xe
rubidium	strontium	yttrium	zirconium	niobium	molybdenum	technetium	ruthenium	rhodium	palladium	silver	cadmium	indium	tin	antimony	tellurium	iodine	xene	on
85.4678	87.62	88.90584	91.224	92.90637	95.95	(97.907212)	101.07	102.90550		107.8682	112.414	114.818		121.760	127.60	126.90447	131.2	293
55 Cs	56 Ba	57-71	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 TI	82 Pb	83 Bi	84 Po	85 At	86	Rn
caesium	barium	LANTHA-	hafnium	tantalum	tungsten	rhenium	osmium	iridium	platinum	gold	mercury	thallium	lead	bismuth	polonium	astatine	rade	on
132.90545196		NIDES		180.94788	183.84	186.207	190.23	192.217		196.966569	200.592	204.38	207.2	208.98040	(208.98243)	(209.98715)	(222.01	1758)
87 Fr	88 Ra	89–103	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 FI	115 Mc	116 Lv	117 Ts	118	Og
francium	radium	ACTINIDES	rutherford.	dubnium	seaborgium	bohrium	hassium	meitnerium	darmstadt.	roentgen.	copernicium	(nihonium)	flerovium	(moscovium)	livermorium	(tennessine)	(ogane	sson)
(223.01974)	(226.02541)		(267.12169)	(268.12567)	(271.13393)	(272.13826)	(270.13429)	(276.15159)	(281.16451)	(280.16514)	(285.17712)	(284.17873)	(289.19042)	(288.19274)	(293.20449)	(292.20746)	(294.21	1392)

Lanthanide series	57	La	58		59	Pr		Nd	-	Pm	-	Sm		Eu	-	Gd			66	Dy		Но			69			Yb		Lu
501105	lantha		cerium		praseodym.		neodymium		promethium		samarium		europium		gadolinum		terbium		dysprosium		holmium		erbium		thulium		ytterbium		luteti	um
	138.90547		140.116		140.90766		144.242		(144.91276)		150.36		151.964		157.25		158.92535		162.500		164.93033		167.259		168.93422		173.054		174.9	668
			,																									,		
Actinide	89	Ac	90	Th	91	Pa	92	U	93	Np	94	Pu	95	Am	96	Cm	97	Bk	98	Cf	99	Es	100	Fm	101	Md	102	No	103	Lr
series	actinium		thorium		protactinium		uranium neptuniu		nium	plutonium		americium		curium		berkelium		californium		einsteinium		fermium		mendelevium		nobelium		lawrencii		
	(227.02775)		3) 232.0377		231.03588		238.02891		(237.04	1817)	(244.06420)		(243.06138)		(247.07035)		(247.07031)		(251.07959)		(252.08298)		(257.09511)		(258.09844)		(259.10103)		(262.10	)961)