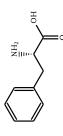
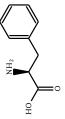
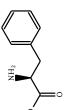


Group 1



## Periodic Table of the Elements





																<u>o</u>
Hydrogen											-	:	÷	٤	1	$\overset{\text{2}}{\text{He}}\overset{\text{1s}}{\text{Helium}}$
7	ſ									•	13	4	<u>c</u>	<u>0</u>	_	4.0026
2s 4 1.57 2s Be	v	E	$\mathbf{S}^{\times}$ ss $\mathbf{S}^{\vee}$	Z: atomic number $\chi$ : Pauling electronegativity ss: last occupied subshell	nber etronegativity ed subshell	L p					5 2.04 2 <i>p</i> <b>B</b>	6 2.55 2p C	$\stackrel{7}{N}$ 3.04 $\stackrel{2p}{N}$	8 3.44 2 <i>p</i>	9 3.98 2 <i>p</i>	$^{^{2 ho}}$ Ne
beryllium 9.0122		}	element	Sy: symbol element name saw: standard atomic w	Sy: symbol element: element name saw: standard atomic weiøht:†						boron 10.8135	carbon 12.0105	nitrogen 14.007	oxygen 15.9995	fluorine 18.998	neon 20.18
3s 12 1.31 3s	- s	-			0						3p	14 1.90 3 <i>p</i>	15 2.19 3 <i>p</i>	16		18 3 <i>p</i>
Mg											Al	Si	Ъ	S.	Ü	Ar
sodium magnesium 22.99 24.3055	т	4	ις	9	7	∞	6	10	Ε	12	aluminium 26.982	silicon 28.085	phosphorus 30.974	sulfur 32.0675	chlorine 35.4515	argon 39.8775
4s 20 1.00 4	4s 21 1.36 3 <i>d</i>	3d 22 1.54 3d	23 1.63 34	24 1.66 3 <i>d</i> °	25 1.55 3d 26	1.83 3 <i>d</i>	27 1.88 3d	28 1.91 3 <i>d</i>	3d 29 1.90 3d°	30 1.65 3 <i>d</i>	31 1.81 4 <i>p</i>	32 2.01 4 <i>p</i>	33 2.18 4p	34 2.55 4p 35	35 2.96 4p	36 4p
Ca	Sc	ï	>	ű	Mn	Fe	ပိ	Ν̈́	Cn	Zn	Ga	Ĝe	As	Se	Br	Kr
potassium calcium 39.098 40.078	scandium 44.956	titanium 47.867	vanadium 50.942	chromium 51.996	manganese 54.938	iron 55.845	cobalt 58.933	nickel 58.693	copper 63.546	zinc 65.38	gallium 69.723	germanium 72.63	arsenic 74.922	selenium 78.971	bromine 79.904	krypton 83.798
l	5s 39 1.22 4d	40 1.33 4d	41 1.6 4d*	42 2.16 4d°	43 1.9 4 <i>d</i> 44	44 2.2 4d 45	2.28 4d°	46 2.20 4d*	47 1.93 4d*	48 1.69 4 <i>d</i>	49 1.78 5 <i>p</i>	50 1.96 5 <i>p</i>	51 2.05 5 <i>p</i>	52 2.1 5 <i>p</i>	53 2.66 5 <i>p</i>	54 2.60 5 <i>p</i>
Rb Sr	Σ	Zr	Nb	Mo	Ic	Ru	Rh	Ьd	Ag	Cq	In	Sn	Sb	Ie	П	Xe
rubidium strontium 85.468 87.62	yttrium 88.906	zirconium 91.224	niobium 92.906	molybdenum 95.95	technetium (97)	ruthenium 101.07	rhodium 102.91	palladium 106.42	silver 107.87	cadmium 112.41	indium 114.82	tin 118.71	antimony 121.76	tellurium 127.6	iodine 126.9	xenon 131.29
6s 56 0.89 6s		24	73 1.5 5 <i>d</i>	74 2.36 54 75	75 1.9 5d 76	76 2.2 5d 77	2.2 54	78 2.28 54° 79	79 2.54 5 <i>d</i> °	b2 6.1 08	81 1.62 6 <i>p</i>	82 1.8 6 <i>p</i>	83 2.02 6p	84 2.0	6p 85 2.2 6p	d9 98
Ba	*	HĘ	Па	$\geqslant$	Re	Os	Ir	Pt	Au	Hg	H	Pb	Bi	Po	At	Rn
caesium barium 132.91 137.33	lanthanides	hafnium 178.49	tantalum 180.95	tungsten 183.84	rhenium 186.21	osmium 190.23	iridium 192.22	platinum 195.08	gold 196.97	mercury 200.59	thallium 204.385	lead 207.2	bismuth 208.98	polonium (209)	astatine (210)	radon (222)
7s 88		<i>p</i> 9	105 64	106 b9 501		601 <i>p</i> 9 801	<i>p</i> 9	<i>p</i> 9 011	<i>p</i> 9 111	112 64	113		q7 211 q7	911	77	η7 81T
Fr Ra		Rf		Sa	Bh	Hs		Ds		Cu	Nh	됴	Mc	ΓΛ	L	Og
radium (226)	actinides	rutherfordium (267)	dubnium (268)	seaborgium (269)	bohrium (270)	hassium (269)	meitnerium (278)	darmstadtium (281)	roentgenium (282)	copernicium (285)	nihonium (286)	flerovium (289)	moscovium (290)	livermorium (293)	tennessine (294)	oganesson (294)

4	р9
$\frac{4f}{L}$ 71 1.27 $\frac{1}{L}$ Intetium 174.97	$\sum_{\substack{L \  ext{lawrencium} \ (266)}} 6d$
$\sum_{\text{ytterbium}\atop{173.05}}^{4f}$	NO N
F. 1.25 4f Tm thulium 168.93	1.3 5f Md indelevium (258)
68 1.24 4f 69 ET erbium 167.26	$f_{m}$ $f_{m}$ $f_{m}$ $f_{m}$ $f_{m}$ $f_{m}$
67 1.23 4f 68 HO holmium 164.93	$\overset{1.3}{\mathrm{ES}}$
4f 66 1.22 4f 67 Dy dysprosium 162.5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
65 4f Tb terbium 158.93	$\begin{array}{ccc} \textbf{BR} \\ \textbf{BK} \\ \textbf{berkelium} \\ \textbf{(247)} \end{array}$
4f 64 1.2 4f Gd gadolinium 157.25	$\mathop{carium}\limits_{(247)}^{96}$
63 4f Eu europium	$\mathop{\mathrm{Am}}_{{}^{\mathrm{mericium}}}$
4f 62 1.17 4f Sm	$\begin{array}{c cccc} \textbf{94} & \textbf{1.28} & \textbf{5f} & \textbf{95} \\ \hline & \textbf{Pu} \\ \textbf{plutonium} \\ \textbf{(244)} \end{array}$
$\mathop{\mathrm{Pm}}_{{}^{145)}}$	$\underset{(237)}{Np}_{\text{neptunium}}$
$\sum_{\substack{\text{neodymium}\\144.24}}^{4f} \epsilon_1$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
La Ce Dr Dr Draseodymium cerium praseodymium reodym 140.31 140.31 141.22	91 1.5 5 <i>f</i> <b>Pa</b> protactinium 231.04
58 1.12 4 <i>f</i> Ce cerium 140.12	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
57 1.1 5 <i>d</i> *  La  lanthanum 138.91	89 1.1 6 <i>d</i> · AC actinium (227)
*	* *

†Standard atomic weights (average terrestrial atomic weight) taken from the Commission on Isotopic Abundances and Atomic Weights (http://www.ciaaw.org/abridged-atomic-weights.htm). If CIAAW indicates a range for the standard atomic weight of an element, I used the arithmetic mean of the boundaries of the range. Elements with atomic weight in parentheses (e.g., Francium (223)) have no known stable isotopes and it is therefore impossible to provide a standard atomic weight. For these elements, the mass of a representative isotope is provided.

'Indicates an anomalous (Aufbau rule-breaking) ground state electron configuration. Inspired by Ivan Griffin's Efi≵ Periodic Table. Efi≵code is released under the MIT open source license. Final product (this Table) is released under creative commons attribution/share-alike copyright terms. ⊛⊕© 2022. Paul N. Danese

