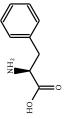
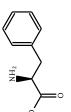


Periodic Table of the Elements





18	Helium 4.0026	$\mathop{\mathrm{Ne}}_{{}^{\text{neon}}^{\text{20.18}}}$	$\mathop{\mathrm{Ar}}_{\mathop{argon}\atop\mathop{argon}\atop\mathop{39.8775}}$	36 4 <i>p</i> Kr Krypton 83.798	Xenon 131.29	$\mathop{Rn}_{\text{radon}\atop (222)}$	$\mathop{\rm Oganesson}_{(294)}^{7p}$
	17	9 3.98 2 <i>p</i> H fluorine 18.998	C1 3.16 3p C1 chlorine 35.4515	35 2.96 4 <i>p</i> B bromine 79.904	S3 2.66 5 <i>p</i> I iodine 126.9	At astatine (210)	$\mathop{\Gamma_{p}}\limits_{\text{nnessine}\atop(294)}$
	16	8 3.44 2p Ooxygen 15.9995	16 2.58 3 <i>p</i> 17 S sulfur 32.0675	34 2.55 4p 35 Se selenium 78.971	$\begin{array}{cccc} 52 & 2.1 & 5p & 53\\ Te & & & \\ tellurium & & & \\ 127.6 & & & \end{array}$	84 2.0 6ρ 85 PO polonium (209)	$\frac{116}{LV}$ livermorium te
	15	$\sum_{\substack{\text{nitrogen} \\ 14.007}}^{3.04}$	2.19 3 <i>p</i> P 10s phorus 30.974	2.18 4 <i>p</i> AS arsenic 74.922	S1 2.05 5p 3 SD antimony 121.76	83 2.02 6 <i>p</i> 8 Bi bismuth 208.98	$\stackrel{7p}{ m MC}_{{ m oscovium}\atop{(290)}}$
	41	6 2.55 2p 7 C carbon 12.0105	Silicon ph	32 2.01 4 <i>p</i> 33 Ge germanium 72.63	$\sum_{\substack{\text{tin}\\\text{tin}\\118.71}}^{50}$	1.8 6p Pb lead 207.2	$\frac{F1}{F1}$ Herovium (289)
	13	B boron 10.8135	A_1 aluminium 26.982	31 1.81 4 <i>p</i> 32 Ga gallium 8	1.78 5p In Indian Indian Indian	1.62 6p 82 T1 thallium 204.385	N_{nihonium}^{7p}
	1		. 21	30 1.65 3 <i>d</i> Zn zinc 65.38	48 1.69 4d Cd cadmium 112.41	Hg mercury 200.59	$\mathop{Cn}_{\text{copernicium}}^{\text{fd}}$
			נ	1.90 3d° Cu copper 63.546	AB silver 107.87	$\mathop{Au}_{\mathop{\rm gold}}^{2.54~5d^{\circ}}$	$R_{\rm g}^{\rm fd}$
			01	28 1.91 3 <i>d</i> 29 Ni nickel 58.693	46 2.20 4d Pd palladium 106.42	78 2.28 5d° 79 Pt platinum 195.08	$\sum_{\substack{\text{darmstadtium}\\ (281)}}^{6d}$
			6	CO cobalt 58.933	2.28 4d* Rh rhodium 102.91	77 2.2 5 <i>d</i> I r iridium 192.22	$\mathop{\mathrm{Mt}}_{{}^{\mathrm{eitnerium}}}$
			∞	1.83 3 <i>d</i> Fe iron 55.845	Ru ruthenium 101.07	OS OSmium 190.23	$\overset{\text{108}}{\overset{\text{6d}}{\overset{\text{109}}{\text{109}}}} H_{\mathbf{S}}^{\text{109}}$
		Z: atomic number x: Pauling electronegativity ss: last occupied subshell Sy: symbol element name saw: standard atomic weight?	7	25 1.55 3 <i>d</i> 26 Mn manganese 54.938	43 1.9 4 <i>d</i> 44 TC technetium r (97)	$\frac{Re}{Re^{\frac{1}{186.21}}}$	$\mathop{Bh}\limits_{\stackrel{\text{bohrium}}{\scriptscriptstyle{(270)}}}$
		Z: atomic number X: Pauling electronegativity ss; last occupied subshell Sy: symbol element: element name saw: standard atomic weigl	9	$\overset{\text{24}}{\overset{\text{1.66}}{\text{C}}}\overset{\text{3d}}{\overset{\text{2d}}{\text{C}}}$	42 2.16 4d° MO molybdenum 95.95	74 2.36 5 <i>d</i> 75 W tungsten 183.84	$\sum_{\substack{\text{seaborgium} \\ (269)}} 6d _{107}$
		$\sum_{\substack{\lambda \\ \text{element} \\ \text{saw}}} x$	5	23 1.63 3 <i>d</i> 24 V anadium 50.942	1.6 4d° ND niobium 92.906	73 1.5 5 <i>d</i> 74 Ta tantalum 180.95	Db dubnium (268)
			4	3d 22 1.54 3d Ti titanium 47.867	4d 40 1.33 4d Zr zirconium 91.224	72 1.3 5 <i>d</i> Hf hafnium 178.49	$\underset{\text{rutherfordium}}{Rf}$
			ĸ	SC 1.36 Scandium 44.956	39 1.22 Y yttrium 88.906	* lanthanides	**
	2	$\begin{array}{ccc} 4 & 1.57 & 2s \\ \mathbf{Be} \\ \mathbf{beryllium} \\ 9.0122 \end{array}$	$\underset{\text{magnesium}}{\text{Mg}}_{\text{pagnesium}}$	20 1.00 4s Ca calcium 40.078	$\begin{array}{ccc} 38 & 0.95 & 5s \\ & & & \\ St & & \\ strontium & 87.62 & \\ \end{array}$	56 0.89 6s Ba barium 137.33	88 0.9 7s Ra radium (226)
Group 1	1 2.20 1s H hydrogen 1.008	3 0.98 2s Li lithium 6.9675	11 0.93 3s Na sodium 22.99	19 0.82 4s	$\begin{array}{ccc} {\rm 37} & {\rm 0.82} & {\rm 5s} \\ Rb \\ {\rm rubidium} \\ {\rm 85.468} \end{array}$	55 0.79 6s CS caesium 132.91	$\mathop{Fr}_{\text{francium}}^{7s}$
	1	2	~	4	72	9	_

4			<i>p</i> 9		E
4f 71 1.27	Tn	lutetium 174.97	5f 103	Lr	lawrencium (266)
7.	ХÞ	ytterbium 173.05	102 1.3		nobelium (259)
4f 69 1.25 4f 70	Im	thulium 168.93	101 1.3 5 <i>f</i>	Md	n mendelevium (258)
	L1	erbium 167.26	100 1.3 5 <i>f</i>	Fm	fermium (257)
4f 67 1.23 4f	0H	holmium 164.93	5f 99 1.3 5f	Es	einsteinium (252)
4 66 1.22 4	Ωλ	dysprosium 162.5	5f 98 1.3 5f	CŁ	californium (251)
Ī	I.b	terbium 158.93	1.3	Bk	berkelium (247)
4f 64 1.2 4f° 65	5	gadolinium 157.25	96 5f 97	Cm	curium (247)
4 63 4	ЕÜ	europium 151.96	5f 95 5f	Am	americium (243)
62 1.17 4	Sm	samarium 150.36	94 1.28 5 <i>f</i>	Pu	plutonium (244)
	Ьш	promethium (145)	93 1.36 5 <i>f</i> *	Np	neptunium (237)
4f 60 1.14 4f 61	DZ	neodymium 144.24	1.5 5f 92 1.38 5f 93	D	uranium 238.03
<u> </u>	Pľ	praseodymium 140.91	91 1.5 5 <i>f</i> *	Pa	protactinium 231.04
5d 58 1.12 4f 59	و و	cerium 140.12	1.1 6d° 90 1.3 5f° 91	Тh	thorium 232.04
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.

