Periodic Table of the Elements

$\overset{1s}{\mathrm{Helium}}$	$\overset{2p}{\mathrm{Neon}}^{2p}$	$\mathop{\mathbf{Ar}}_{^{\mathrm{3}p}}^{3p}$	$\overset{3.00}{\mathrm{Kryton}}$	$\overset{\text{l}}{\overset{2.60}{\text{X}}}\overset{5p}{\text{E}}$	$\mathop{\mathbf{Rn}}_{(222)}^{2.2}$ 6 <i>p</i>	$\bigcup_{(294)}^{118}$
a	$\frac{3.98}{\mathbf{F}}$ 2p 10 Fluorine 18.998403163	7 3.16 3p 18 Chlorine 35.446	$\frac{\mathbf{Br}}{\mathbf{Br}}$	2.66 5p 54 Lodine 26.90447	\mathbf{At}	$\int_{(294)}^{7p}$
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6 2.58 3p 17 Sulphur 32.059	35 49 35 88 Selenium I Selenium I Selenium I Selenium I 78.971	$egin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c cccc} \mathbf{Po} & \mathbf{6p} & 85 \\ \mathbf{Po} & \mathbf{Po} \\ \mathbf{Polonium} & \mathbf{Polonium} & \mathbf{Polonium} \end{array}$	7p 1
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	15 2.19 3p 16 Phosphorus 30.973761998	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{51}{\mathbf{Sb}}$ $\frac{2.05}{\mathbf{Sb}}$ $\frac{5p}{121.760}$	83 2.02 6p 84 Bismuth P	$\sum_{\substack{\text{Unumpentium} (289)}}^{7p} \frac{115}{\text{Live}}$
	6 $\frac{2.55}{\text{C}}$ 2p 7 Carbon 12.0096	3p 14 1.90 3p 15 Silicon PP 28.084 30.0	4p 32 2.01 4p 33 Germanium 72.630	$\sum_{\substack{\text{Tin}\\1.18.710}} 5p 5p 51$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	7p 114 $7p$ Flerovium (289)
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \underset{26.9815385}{13} $	\mathbf{G}^{3d} 31 1.81 4p \mathbf{G}^{2d} Gallium 69.723	$\overset{1.78}{\mathbf{Ln}}$	5d 81 1.62 6p TI Thallium 204.382	$\bigcup_{\mathbf{n}}^{6d} \mathbf{ut}$ $\bigcup_{(286)}^{7p}$
			$\sum_{\mathrm{Zinc}}^{1.65}$	${f Ag}^* = {f Cadminm}^* + {f Ag}^* = {f Cadminm}^* + {f Cadminm}^*$	$\overset{80}{\overset{2.00}{\text{Hgg}}}_{\overset{\text{Mercury}}{\text{200.592}}}$	$\mathop{\mathrm{Coperniciu}}\limits_{(285)}^{112}$
Z= atomic number; eneg = electronegativity; ss = subshell; Sy = Symbol, Name = element name, saw = standard atomic weight		$\begin{bmatrix} 29 & \underline{1.90} & 3d^* & 30 \\ \mathbf{C} & \mathbf{U} \\ \text{Copper} \\ \text{G3.546(3)} \end{bmatrix}$	2 2 20	$\overset{79}{\mathbf{Au}}^{2.54\ 5d^*}$ 80 $\overset{80}{\mathbf{Au}}^{\mathbf{Gold}}$ 196.966569(5)	$\mathop{\mathrm{Reentgenim}}\limits_{\scriptscriptstyle{(282)}}$	
		3d 28 1.91 3a Nickel 58.6934	$\overset{*}{\operatorname{Pd}}^{*}$	54 78 2.28 54* 79 Platinum 195.084 19	$\mathop{D_{\mathrm{Samstadtiu}}}\limits_{\mathrm{(281)}}$	
		3d 27 1.88 3a Co Cobalt 58.933194	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	54 77 2.20 50 Eridium 192.217	$\bigvee_{(278)}^{6d} \mathbf{L}$	
		3d 26 1.83 36 Feb 1.83 555.845		54 76 2.2 56 Osmium 190.23	$\stackrel{6d}{=} \frac{108}{\text{Hassium}} \stackrel{6c}{=}$	
eg = electronega element name, s			$\sqrt{\mathbf{h}}$	$ \frac{2.16}{\sqrt{10}} \frac{4d^*}{\sqrt{10}} $ $ \frac{1.9}{\sqrt{10}} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$egin{array}{c c} 6d & 107 & 6a \ & \mathbf{Bh} \ & \mathbf{Bohrium} \ & (270) \ \end{array}$
mic number; enc mbol, Name = 1		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	42 2.16 4d* 1	54 74 2.36 50 W W Tungsten 183.84	$\begin{array}{c c} 6d & 106 & 6a \\ & \mathbf{Sg} \\ & \text{Seaborgium} \\ & (269) \end{array}$	
		٦	3d 23 1.63 3d 24	$\left \begin{array}{c c} 41 & \underline{1.6} & 4d^* \\ \hline & NB \\ Niobium \\ 92.90637 \end{array} \right $	54 73 1.5 50 Tantalum 180.94788	$\mathop{\mathrm{Db}}_{\text{Dubnium}}^{105}$
	\vec{S} $\vec{S}_{\vec{V}}$ Name saw		3d 22 1.54 3c Titanium 47.867	$ \sum_{\substack{Y \text{ Yutuum} \\ \text{88.90584}} } \frac{39}{2} \frac{1.22}{4} \frac{44}{40} \frac{40}{1.33} \frac{1.33}{44} \frac{44}{11.6} \frac{1.6}{44^*} \frac{42}{42} $	72 1.3 56 Halfnium 178.49	$\Pr_{\text{Rutherfordium}}^{6d}$
			45 21 1.36 36 SC Scandium 44.955908	39 1.22 46 Y Yttrium 88.90584	57-71 * Lanthanides	89-103 ** Actinides
70	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	3s 12 1.31 3s	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5s 38 0.95 5s Strontium 87.62	68 56 0.89 68 Ba rium 66 137.327	$egin{array}{c cccc} 88 & \underline{0.9} & 7s \\ & \mathbf{Ra} \\ & & & & & & & & & & & & & & & & & & $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 0.98 2s Lithium 6.938	$\overset{11}{\overset{0.93}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{\overset{1}{$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	${\overset{\mathbf{R}}{\mathbf{R}}}{\overset{0.82}{\mathbf{b}}}$	$ \begin{array}{ccc} 55 & \underline{0.79} & 6s \\ \mathbf{CS} \\ \mathbf{Cesium} \\ 132.90545196 \end{array} $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

4.	51
44 71 1.27 44 Lu tetium 1.74.9668	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c} 4f \\ \begin{array}{c} \textbf{70} & \underline{1.1} & 4f \\ \\ \begin{array}{c} \textbf{Y} \textbf{D} \\ \\ \textbf{Ytterbium} \\ 173.045 \end{array} \end{array}$	$\sum_{\substack{\text{Nobelium} \\ (259)}}^{1.3} 5f$
tf 69 1.25 4f Thulium 168.93422	$\inf_{(258)} \frac{1.3 \text{ 5}f}{\text{Mendelevium}}$
$\begin{array}{c} 68 \begin{array}{c} 1.24 \\ \hline \mathbf{Er} \\ \text{Erbium} \\ 167.259 \end{array}$	$ \begin{array}{ccc} 100 & \underline{1.3} & 5f \\ \hline Fm \\ Fermium \\ (257) \end{array} $
44 67 1.23 44 HO HOLIUM 164.93033	$\frac{99}{\mathbf{E}_{\mathbf{SS}}} \sum_{\text{Einsteinium}} 5f$
$\mathop{\mathbf{D}}_{\mathrm{Dysprosium}}^{\mathrm{4f}}$	$\begin{array}{c} 5f \\ \hline \mathbf{C}_{\text{Alifornium}} \\ \hline \mathbf{C}_{\text{251}} \end{array}$
$\prod_{\substack{\text{Terbium}\\158.92535}}^{4f}$	$\begin{array}{c} 97 \underline{1.3} 5f \\ \mathbf{Bk} \\ \mathbf{Berkelium} \\ (247) \end{array}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\overset{63}{\overset{1.2}{\overset{1.2}{\mathbf{E}}}}\overset{4f}{\mathbf{u}}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\mathop{\mathbf{Smarium}}_{150.36}$	$\Pr_{(244)}^{94}$
$ \stackrel{60}{\overset{1.14}{N}} \stackrel{4f}{d} \stackrel{61}{\overset{1.13}{N}} \stackrel{4f}{d} \stackrel{1}{\overset{1.13}{M}} \stackrel{4f}{m} $ Neodymium Promethium 144.242 (145)	$\sum_{\substack{\text{Neptunium} \\ (237)}} \underbrace{\text{5}f^*}_{\text{Neptunium}}$
$\mathop{\overset{60}{\operatorname{Nodymium}}}_{144.242}^{\underline{1.14}}$	92 $1.38 5f^*$ Uranium 238.02891
$\Pr_{\mathbf{Pr}} = \frac{1.13}{\mathbf{Pr}}$ Praseodymium 140.90766	$\Pr_{231.03588}^{91 \ \underline{1.5} \ 5f^*}$
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$rac{57}{ ext{La}} rac{5d^*}{ ext{La}}$ Lanthanum 138.90547(7)	89 $\frac{1.1}{\mathbf{A}}$ 6 d^* Actinium (227)
*	* *

Standard atomic weights taken from the Commission on Isotopic Abundances and Atomic Weights (ciaaw.org/atomic-weights.htm). Adapted from Ivan Griffin's LYBX Periodic Table. © 2016 Paul Danese

An asterisk (*) next to a subshell indicates an anomalous (Aufbau rule-breaking) ground state electron configuration.