## Periodic table of elements

## Mendeleev's table

1 2.20 1s H Hydrogen 1.00784-1.00811																2 1s He Helium 4.002602(2)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		$egin{array}{cccc} {\sf Z} & \chi & {\sf ss} \ & {f Sy} & { m Name \ saw} \end{array}$	ss: subshell Sy: symbol Name: eleme	ativity							5 2.04 2p B Boron 10.806-10.821	6 2.55 2p C Carbon 12.0096–12.0116	7 3.04 2p N Nitrogen 14.00643- 14.00728	8 3.44 2p O Oxygen 15.99903- 15.99977	9 3.98 2p F Fluorine 18.998403163(6)	10 2p Neo Neon 20.1797(6)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$											13 1.61 3 <i>p</i> Al Aluminium 26.9815385(7)	14 1.90 3 <i>p</i> Si Silicon 28.084–28.086	15 2.19 3 <i>p</i> P Phosphorus 30.973761998(5)	16 2.58 3p S Sulfur 32.059–32.076	17 3.16 3p Cl Chlorine 35.446-35.457	18 3p Ar Argon 39.948(1)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	21 1.36 3 <i>d</i> Sc Scandium 44.955908(5)	22 1.54 3 <i>d</i> <b>Ti</b> Titanium 47.867(1)	$egin{array}{cccc} 23 & 1.63 & 3d \\ \hline V & \\ Vanadium & \\ 50.9415(1) & \end{array}$	24 1.66 3 <i>d*</i> Cr  Chromium  51.9961(6)	25 1.55 3 <i>d</i> Mn Manganese 54.938044(3)	26 1.83 3 <i>d</i> Fe Iron 55.845(2)	27 1.88 3 <i>d</i> Co Cobalt 58.933194(4)	28 1.91 3 <i>d</i> Ni Nickel 58.6934(4)	29 1.90 3 <i>d*</i> Cu Copper 63.546(3)	30 1.65 3 <i>d</i> 2n Zinc 65.38(2)	31 1.81 4 <i>p</i> <b>Ga</b> Gallium 69.723(1)	32 2.01 4p Ge Germanium 72.630(8)	33 2.18 4p As Arsenic 74.921595(6)	34 2.55 4p Se Selenium 78.971(8)	35 2.96 4p <b>Br</b> Bromine 79.901–79.907	36 3.00 4p  Kr  Krypton 83.798(2)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	39 1.22 4 <i>d</i> <b>Y</b> Yttrium 88.90584(2)	40 1.33 4 <i>d</i> 2r Zirconium 91.224(2)	41 1.6 4 <i>d*</i> <b>Nb</b> Niobium  92.90637(2)	42 2.16 4 <i>d*</i> Mo  Molybdenum  95.95(1)	Tc	44 2.2 4 <i>d*</i> Ru Ruthenium 101.07(2)	45 2.28 4 <i>d*</i> Rh Rhodium 102.90550(2)	46 2.20 4 <i>d*</i> Pd Palladium 106.42(1)	47 1.93 4 <i>d*</i> Ag Silver 107.8682(2)	48 1.69 4 <i>d</i> Cd Cadmium 112.414(4)	49 1.78 5p In Indium 114.818(1)	50 1.96 5 <i>p</i> Sn Tin 118.710(7)	51 2.05 5 <i>p</i> Sb Antimony 121.760(1)	$\begin{array}{ccc} 52 & 2.1 & 5p \\ & Te \\ & Tellurium \\ & 127.60(3) \end{array}$	53 2.66 5 <i>p</i> I  Iodine 126.90447(3)	54 2.60 5p Xe Xenon 131.293(6)
$\begin{array}{cccc} 55 & 0.79 & 6s & 56 & 0.89 & 6s \\ & Cs & Ba \\ & & & & Barium \\ & & & & 132.90545196(6) & 137.327(7) \end{array}$	* Lanthanides	72 1.3 5 <i>d</i> Hf  Hafnium  178.49(2)	73 1.5 5 <i>d</i> <b>Ta</b> Tantalum  180.94788(2)	74 2.36 5 <i>d</i> W  Tungsten 183.84(1)	75 1.9 5 <i>d</i> Re Rhenium 186.207(1)	76 2.2 5 <i>d</i> Os Osmium 190.23(3)	77 2.20 5 <i>d</i> Ir Iridium 192.217(3)	78 2.28 5 <i>d*</i> Pt Platinum 195.084(9)	79 2.54 5 <i>d*</i> Au Gold 196.966569(5)	80 2.00 5 <i>d</i> Hg Mercury 200.592(3)	81 1.62 6p Tl Thallium 204.382-204.385	$\begin{array}{ccc} 82 & 1.87 & 6\rho \\ & \mathbf{Pb} \\ & \text{Lead} \\ & 207.2(1) \end{array}$	83 2.02 6p <b>Bi</b> Bismuth 208.98040(1)	84 2.0 6 <i>p</i> <b>Po</b> Polonium  (209)	85 2.2 6p At Astatine (210)	86 2.2 6p Rn Radon (222)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	** Actinides	$ \begin{array}{c}                                     $	Db	Seaborgium (269)	Bh Bohrium (270)	Hassium (269)	${f Mt}_{Meitnerium}^{6d}$	Ds	$\mathop{\rm Rg}_{\substack{(282)}}^{111}$	$\mathbf{Cn}$	$\begin{array}{c} 113 & 7p \\ {\bf Nh} \\ {\rm Nihonium} \\ {\rm (286)} \end{array}$	Flerovium (289)	Mc	${f Lv} \ {f Lv} \ {f Livermorium} \ {f (293)}$	Ts	$\begin{array}{c} \mathbf{Og} \\ \mathbf{Og} \\ \mathbf{Oganesson} \\ \mathbf{Oganesson} \\ \mathbf{(294)} \end{array}$
	*	57 1.1 5 <i>d*</i> La Lanthanum 138.90547(7)	58 1.12 4 <i>f</i> *  Ce  Cerium  140.116(1)	59 1.13 4f <b>Pr</b> Praseodymiur 140.90766(2)	60 1.14 4f Nd Neodymium 144.242(3)	61 1.13 4f Pm Promethium (145)	62 1.17 4f Sm  Samarium  150.36(2)	63 1.2 4f Eu Europium 151.964(1)	$\begin{matrix} 64 & 1.2 & 4f^{*} \\ \mathbf{Gd} \\ \mathbf{Gadolinium} \\ \mathbf{157.25(3)} \end{matrix}$	65 1.1 4 <i>f</i> <b>Tb</b> Terbium  158.92535(2)	66 1.22 4 <i>f</i> <b>Dy</b> Dysprosium  162.500(1)	67 1.23 4 <i>f</i> Ho Holmium 164.93033(2)	68 1.24 4f <b>Er</b> Erbium 167.259(3)	69 1.25 4f Tm Thulium 168.93422(2)	70 1.1 4f Yb Ytterbium 173.045(10)	71 1.27 4f  Lu  Lutetium  174.9668(1)
	**	89 1.1 6 <i>d*</i> Ac Actinium (227)	90 1.3 5f* <b>Th</b> Thorium  232.0377(4)	91 1.5 5 <i>f</i> * <b>Pa</b> Protactinium  231.03588(2)	92 1.38 5 <i>f</i> * U Uranium 238.02891(3)	93 1.36 5 <i>f</i> *	94 1.28 5 <i>f</i> <b>Pu</b> Plutonium  (244)	95 1.13 5 <i>f</i> Am Americium (243)	96 1.28 5 <i>f</i> *  Cm  Curium  (247)	97 1.3 5 $f$ $\mathbf{Bk}$ Berkelium (247)	Cf	99 1.3 5 <i>f</i> Es Einsteinium (252)	100 1.3 5 <i>f</i> <b>Fm</b> Fermium (257)	$101  1.3  5f$ $\mathbf{Md}$ Mendelevium $(258)$	No	103 1.3 5 <i>f</i> Lr  Lawrencium  (266)

Standard atomic weights taken from the Commission on Isotopic Abundances and Atomic Weights (ciaaw.org/atomic-weights.htm). An asterisk (\*) next to a subshell indicates an anomalous (Aufbau rule-breaking) ground state electron configuration.