Tableau périodique des éléments

	\mathbf{I}	II	III	IV	$oxed{\mathbf{v}}$	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII
	Hydrogène 2, 2 1s ¹																Hélium 1s ²	
1	$_{1}\mathrm{H}$	Nom élément Élément															₂ He	
	1,00	D	Électro	onégativité		→ 8,88	→ 8,88 [Y]										4,00	
	Lithium $0,98$ $[He]$	Béryllium $1,57$ $[He]$ $2s^2$					3.7	as^i	Q.				$ \begin{array}{ccc} & \text{Bore} \\ 2,04 & [He] \\ & \text{5B} & \begin{array}{c} 2s^2 \\ 2p^1 \end{array} \end{array} $	[He]	[He]	3,44 $[He]$	Fluor $3,98$ $[He]$ $2s^2$	Néon $[He]$
2	$_3\mathrm{Li}^{^{2s^2}}$	$_4$ Be $^{^{2s^2}}$		Symbole			$\xrightarrow{7}X$	bp^{j}	 Structure électronique [Y] désigne la structure du gaz noble antérieur. 					$_{6}$ C $_{2p^{2}}^{2s_{2}^{2}}$	$_{7}$ N $_{2p^3}^{2s_3^2}$	$8O$ $\frac{2s}{2p^4}$	$_9$ F $_{2p^5}^{2s^2}$	$_{10}{ m Ne}^{-\frac{2s^2}{2p^6}}$
	6,94	9,01	Nom	bre de prot	ons —		→ <u>Z</u>	$nd^k \\ mf^l$						12,01	14,01	16,00	19,00	20,18
	Sodium $[Ne]$ $3s^1$	Magnésium $1,31$ $[Ne]$	Mas	sse molaire	(g/mol) —		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							Soufre $2,58$ $[Ne]$ $3s^2$	້ ວັ	Argon $[Ne]$		
3	₁₁ Na ^{3s²}	$_{12}\mathrm{Mg}^{^{3s^2}}$					$\begin{array}{c ccccccccccccccccccccccccccccccccccc$								$_{17}{\rm C}\ell^{-\frac{3s^2}{3p^5}}$	$_{18}\mathrm{Ar}$ $_{3p^6}^{3s}$		
	22,99	24,31											26,98	28,09	30,97	32,07	35,45	39,95
	Potassium $0,82$ $[Ar]$	Calcium $1 \qquad [Ar]$	Scandium $1, 36 \qquad [Ar]$ $4s^2$	Titane $1,54$ $[Ar]$ $4s^2$	Vanadium $1,63$ $[Ar]$	Chrome $1,66$ $[Ar]$ $4s^2$	Manganèse $1,55$ $[Ar]$	Fer [Ar		Nickel $1,91$ $[Ar]$	Cuivre $[Ar]$	Zinc $[Ar]$	Gallium $[Ar]$	Germanium $[Ar]$	Arsenic $2, 18$ $[Ar]$	Sélénium $2,55$ $[Ar]$	Brome $2,96$ $[Ar]$	3 $[Ar]$
4	$_{19}\mathrm{K}$	$_{20}\mathrm{Ca}^{-4s}$	$_{21}\mathrm{Sc}^{-\frac{4s}{3d^1}}$	$22 \mathrm{Ti} \frac{4s^2}{3d^2}$	$_{23}$ V $_{3d^3}^{4s^2}$	$_{24}\mathrm{Cr}^{}_{3d^4}$	$_{25}\mathrm{Mn}$ $_{3d^5}^{4s}$	$_{26}\mathrm{Fe}^{-\frac{s}{3d^6}}$	$^{\circ}$ 27Co $^{4s}_{3d^7}$	$_{28}\mathrm{Ni}$ $_{3d^8}^{4s^2}$	$_{29}$ Cu $_{3d^9}^{4s}$	$_{30}\mathrm{Zn}$	$_{31}{\rm Ga}_{{3d_{4p^1}}}^{4s^2}$	$_{32}{\rm Ge}_{_{4p^2}}^{_{4s^2}}$	$_{33} \mathrm{As} ^{4s^{2}}_{3d^{10}_{4p^{3}}}$	$_{34}\mathrm{Se}_{_{4p^{4}}}^{_{4s^{2}}}$	$_{35} \mathrm{Br} {}^{4s}_{{}^{3}d_{10}^{10}}_{{}^{4}p^5}$	$_{36} { m Kr} _{{}^{3d}_{4p^6}}^{{}^{4s}}$
	39,10	40,08	44,96	47,87	50,94	52,00	54,94	55,85	58,93	58,69	63,55	65,38	69,72	72,64	74,92	78,96	79,90	83,80
	Rubidium $0,82 \qquad [Kr]$	Strontium $0,95$ $[Kr]$	Yttrium $1,22$ $[Kr]$	Zirconium $1,33$ $[Kr]$	Niobium $1, 6$ $[Kr]$	Molybdène $[Kr]$ $= 1$	Technétium $1,9$ $[Kr]$	Ruthénium $2, 2$ $[Kr]$	· 1	Palladium $2, 2$ $[Kr]$	Argent $1,93$ $[Kr]$	Cadmium $1,69$ $[Kr]$	Indium $1,78$ $[Kr]$	1,96Étain $[Kr]$	~ 2	Tellure $[Kr]$	Iode $2,66$ $[Kr]$	Xénon $[Kr]$
5	$_{37}\mathrm{Rb}^{-ss}$	$_{38}\mathrm{Sr}^{-5s^2}$	$_{39}$ Y $_{4d^1}^{5s}$	$_{40}\mathrm{Zr}$	$_{41}\mathrm{Nb}$ $_{4d^4}^{5s^4}$	$_{42}\mathrm{Mo}^{^{5s}}_{4d^5}$	43 Tc $4d^6$	$_{44}\mathrm{Ru}^{\frac{5s}{4d^7}}$	45 Rh $^{5s}_{4d^8}$	46Pd 4d10	$_{47}\mathrm{Ag}^{38}_{4d^{10}}$	$_{48}\mathrm{Cd}$ $_{4d^{10}}^{5s}$	$49 \text{In} \overset{5s}{\overset{4d^{10}}{\overset{10}{5p^1}}}$	$50 \text{Sn} \stackrel{5s^2}{\underset{5p^2}{4d^{10}}}$	$_{51}^{Sb}$ $_{5p^3}^{5s^2}$	$52\text{Te}_{\frac{4d^{10}}{5p^4}}$	53 I $\frac{35}{4d_{5p}^{10}}$	$_{54}\mathrm{Xe}_{_{5p^6}}^{_{38}}$
	85,47	87,62	88,91	91,22	92,91	95,96	98	101,07	102,91	106,42	107,87	112,41	114,82	118,71	121,76	127,6	126,90	131,29
	Césium $[Xe]$	Baryum $0,89$ $[Xe]$	Lanthane $1,1 \qquad [Xe]$ $ = 6s^2 $	Hafnium $1, 3$ $[Xe]$	Tantale $[Xe]$	Tungstène $[Xe]$	Rhénium $[Xe]$	Osmium $2, 2$ $[Xe^{2}]$	Iridium $[Xe]$ $\begin{bmatrix} 2 & 2 \end{bmatrix}$	Platine $[Xe]$				Plomb $[Xe]$	0 2	Polonium $[Xe]$	Astate $[Xe]$	Radon $[Xe]$
6	$_{55}\mathrm{Cs}^{-6s}$	$_{56}\mathrm{Ba}^{-68}$	$_{57}\mathrm{La}^{-\frac{6s}{5d^1}}$	$_{72}\mathrm{Hf}\ _{_{5d^2}}^{_{6s_{14}^2}}$	$73 \text{Ta} \left[\begin{array}{cc} 6s_1^2 \\ 4f_{5d}^{14} \end{array} \right]$	$_{74}^{ m W}$	$_{75}\mathrm{Re}\ _{_{5d^{5}}}^{_{6s_{-4}}}$	$_{76}{\rm Os}~_{5d^6}^{6s_1}$	$^{4}_{5}$ 77 Ir $^{6s_{14}}_{5d^{7}}$	$_{78} \mathrm{Pt} \ _{_{5d}^{9}}^{_{6s_{14}^{1}}}$	$_{79}\mathrm{Au}_{_{5d^{10}}}^{_{6s_{14}}}$	$_{80}{ m Hg}_{{5d}^{10}}^{{6s_{14}^2}}$	81^{10}	$_{82}\text{Pb} \ _{_{5d_{2}}^{10}}^{_{6s_{2}^{2}}}$	$_{83}{ m Bi}\ _{5d_{2}}^{6s_{14}}$	$_{84}\text{Po}_{\frac{4f_{14}^{10}}{5d_{4}^{10}}}^{\frac{6s_{1}^{2}}{4f_{14}^{10}}}$	$_{85}{ m At}_{5d_{5}^{10}}^{6s_{14}}$	$_{86}\mathrm{Rn}_{5d_{e}^{10}}^{6s_{14}}$
	132,91	137,33	138,91	178,49	180,95	183,84	186,21	190,23	192,22	195,08	196,97	200,59	$204,38^{6p^1}$	$207,2^{6p^2}$	$208,98^{6p^3}$	209^{6p^4}	210^{-6p^5}	$222 \qquad 6p^6$
		Radium $[Rn]$	Actinium $1, 1$ $[Rn]$		Dubnium $\begin{bmatrix} Rn \end{bmatrix}$	Seaborgium $[Rn]$	Bohrium $\begin{bmatrix} Rn \end{bmatrix}$	Hassium $[Rn$	Meitnérium $[Rn]$	Darmstadtium $[Rn]$	Roentgenium $[Rn]$	Copernicium $[Rn]$	Nihonium $[Rn]$	Flévorium $\begin{bmatrix} Rn \end{bmatrix}$	Moscovium $[Rn]$	Livervorium $[Rn]$	Tennessine $[Rn]$	Oganesson $\begin{bmatrix} Rn \end{bmatrix}$
7	87Fr ^{7s1}	$_{88}$ Ra $^{7s^2}$	$_{89}\mathrm{Ac}$ $_{6d^1}^{7s^2}$	$_{104}\mathrm{Rf}_{{}^{6}d_{14}^{2}}^{{}^{7}s_{2}^{2}}$	$_{105}{ m Db}_{\frac{6d_{14}^3}{5f_{14}}}^{\frac{7s^2}{6d_{14}^3}}$	$_{106} \mathrm{Sg}_{\frac{6d_{14}^4}{5f_{14}}}^{\frac{7s^2}{6d_{14}^4}}$	$_{107} \mathrm{Bh} _{_{5f^{14}}}^{^{7s^2}}$	$_{108}{ m Hs}_{{5f}^{1}}^{{7s}^{2}}$	$_{4}^{7} = _{109} \mathrm{Mt} _{5f^{14}}^{7s_{2}^{2}}$	$_{110} \mathrm{Ds} _{5f^{14}}^{7s^{2}}$	$_{111}\mathrm{Rg}_{\frac{6d_{14}^{9}}{5f_{14}}}^{\frac{7s_{2}^{2}}{6d_{14}^{9}}}$	$_{112} { m Cn}_{\frac{6d_{14}^{10}}{5f_{14}}}^{\frac{7s^2}{6d_{14}^{10}}}$	$_{113}\mathrm{Nh}^{\frac{7s^2}{6d_{14}^{10}}}$	$_{114}\mathrm{Fl}_{5f_{2}^{14}}^{7s_{2}^{2}}$	$_{115}^{9}{ m Mc}_{{5f}^{14}\atop{5f}^{12}}^{{7s}^{2}}$	$_{116} { m Lv}_{5f_{A}^{14}}^{7s_{1}^{2}}$	$117 { m TS} {}^{7s^2}_{5f^{14}_{2}}$	$_{118}{\rm Og}_{{7s_c^2}\atop{7s_c^2}}^{{5f^{11}}}$
	223	226	227	265	268	271	272	270	276	281	280	285	$284 7p^1$	$289 7p^2$	$288 7p^3$	$293 7p^4$	N/A $7p^5$	$294 7p^6$

			Praséodyme $1, 13$ $[Xe]$	Néodyme $[Xe]$	Prométhéum $[Xe]$	Samarium $[Xe]$	Europium $[Xe]$	Gadolinium $1, 2 \qquad [Xe]$	Terbium $[Xe]$	Dysprosium $[Xe]$ $[Xe]$	Holmium $1,23 \qquad [Xe]$	Erbium $1,24 \qquad [Xe]$	Thullium $1,25 \qquad [Xe]$	Ytterbium $[Xe]$	Lutécium $1, 27$ $[Xe]$
Famille des lanthanides \rightarrow	6	$_{58}{\text{Ce}}_{_{5d^{1}}}^{6s^{2}_{1}}$	$_{59} \text{Pr} _{4f}^{6s_3^2}$	$_{60}\mathrm{Nd}$ $_{4f^{4}}^{6s_{4}^{2}}$	$_{61} \text{Pm} {}_{4f^5}^{6s_5^2}$	$\begin{array}{cc} {\rm Samarium} \\ {1,17} & [Xe] \\ 6s^2 \\ 62 \\ {\rm Sm} & {4f^6} \end{array}$	$_{63}$ Eu $_{4f}^{6s_{7}^{2}}$	$_{64}\mathrm{Gd}$ $_{_{5d^1}}^{^{6s^2}}$	$65 \text{Tb} \begin{array}{c} {}^{[Xe]}_{4f^9} \end{array}$	$^{1,22}_{66} \text{Dy}_{4f^{10}}^{\text{Bysprosium}}$	$_{67}\text{Ho}_{4f^{11}}^{6s_{11}^2}$	$_{68}\mathrm{Er}$ $_{4f^{12}}^{6s_{12}^{2}}$	$_{69}\mathrm{Tm}_{4f^{13}}^{6s_{13}^{2}}$	$_{70} \text{Yb} \ _{4f^{14}}^{6s_{14}^2}$	$_{71} { m Lu}_{{5d}^1}^{{6s_{14}^2}\atop{4f_{14}^{14}}}$
		140,12	140,91	144,24	145	150,36	151,96	157,25	158,93	162,5	164,93	167,26	168,93	173,05	174,97
		Thorium $1, 3$ $[Rn]$	Protactinium $1, 5$ $[Rn]$	Uranium $1,38$ $[Rn]$	Neptunium $1,36$ $[Rn]$	Plutonium $1,28$ $[Rn]$	Américium $1,3$ $[Rn]$	Curium $1, 3$ $[Rn]$	Berkélium $1,3$ $[Rn]$	Californium $1, 3$ $[Rn]$	Einsteinium $1, 3$ $[Rn]$	Fermium $1,3$ $[Rn]$	Mendélévium $1, 3$ $[Rn]$	Nobélium $1,3$ $[Rn]$	Lawrencium $[Rn]$
Famille des actinides \rightarrow	7	$_{90}\text{Th}_{6d^2}^{7s_2^2}$	$_{91}\mathrm{Pa}_{5f^{2}}^{7s_{1}^{2}}$	92^{U}	$_{93}{ m Np}~_{_{5f^{4}}}^{^{7s^{2}}}$	$_{94}\mathrm{Pu}^{-7s^2}_{-5f^6}$	$_{95}\mathrm{Am}_{_{5f}{}^{7}}^{^{7s^{2}}}$	$_{96}\mathrm{Cm}_{\frac{6d_{1}}{5f^{7}}}^{\frac{7s^{2}}{6d_{1}^{7}}}$	$_{97}\mathrm{Bk}$ $_{_{5f^{9}}}^{^{7s^{2}}}$	${}^{1,3}_{98}{ m Cf}{}^{[Rn]}_{5f^{10}}$	$_{99}\mathrm{Es}\ _{_{5f^{11}}}^{^{7s^{2}}}$	${}^{1,3}_{100}\mathrm{Fm}^{}_{5f^{12}}^{}_{}$	$_{101}\mathrm{Md}_{_{5f^{13}}}^{^{7s^{2}}}$	$_{102} { m No}_{_{5f^{14}}}^{^{7s^2}}$	$_{103} { m Lw}_{_{5f_{_{_{1}}}^{14}}}^{^{7s^{2}}}$
		232,04	231,04	238,03	237	244	243	247	247	251	252	257	258	259	$262 7p^{2}$

Famille I : Colonne des alcalins

Famille II : Colonne des alcalinoterreux Famille XI : Colonne des métaux nobles Famille XVII : Colonne des halogènes Famille XVIII : Colonne des gaz nobles

Famille III à XII : Colonnes des métaux de transition