

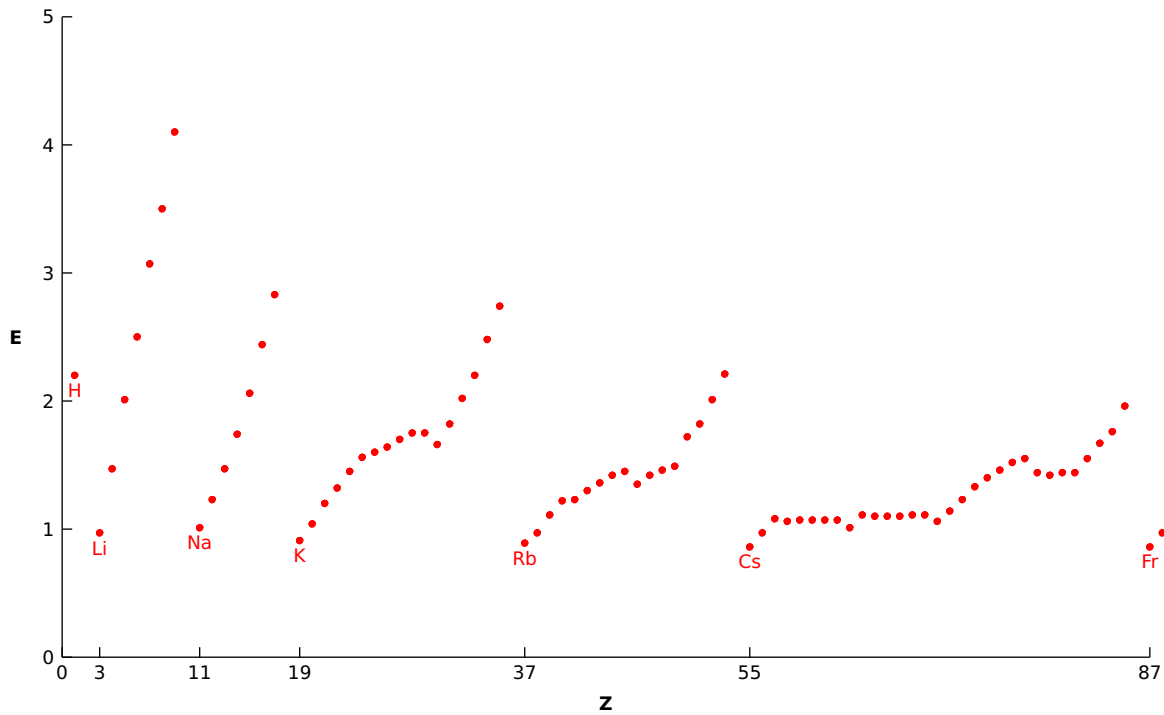
Classification périodique des éléments

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18					
1	H 1.01																	He 4.00					
2	Li 6.94	Be 9.01	Masse molaire (g/mol)										B 10.81	C 12.01	N 14.01	O 16.00	F 19.00	Ne 20.18					
3	Na 22.99	Mg 24.30																					Al 10.81
4	K 39.1	Ca 40.08	Sc 44.96	Ti 47.88	V 50.94	Cr 52.00	Mn 54.94	Fe 55.85	Co 58.93	Ni 58.69	Cu 63.55	Zn 65.39	Ga 69.72	Ge 72.61	As 74.92	Se 78.96	Br 79.90	Kr 83.8					
5	Rb 85.47	Sr 87.62	Y 88.91	Zr 91.22	Nb 92.91	Mo 95.94	Tc 98.91	Ru 101.1	Rh 102.9	Pd 106.4	Ag 107.8	Cd 112.4	In 114.8	Sn 118.7	Sb 121.8	Te 127.6	I 126.9	Xe 131.3					
6	Cs 132.9	Ba 137.3	}	Hf 178.5	Ta 180.9	W 183.8	Re 186.2	Os 190.2	Ir 192.2	Pt 195.1	Au 197.0	Hg 200.6	Tl 204.4	Pb 207.2	Bi 209.0	Po 210.0	At 210.0	Rn 222.0					
7	Fr 223.0	Ra 226.0		}	Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub										
			}	La 138.9	Ce 140.1	Pr 140.9	Nd 144.2	Pm 146.9	Sm 150.4	Eu 152.0	Gd 157.2	Tb 158.9	Dy 162.5						Ho 164.9	Er 167.3	Tm 168.9	Yb 173.0	Lu 175.0
			}	Ac 227.0	Th 232.0	Pa 231.0	U 238.0	Np 237.0	Pu 239.1	Am 241.1	Cm 244.1	Bk 249.1	Cf 252.1						Es 252.1	Fm 257.1	Md 256.1	No 259.1	Lr 260.1

Électronégativité

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	H 2.2																	He	
2	Li 0.97	Be 1.47												B 2.01	C 2.5	N 3.07	O 3.5	F 4.1	Ne
3	Na 1.01	Mg 1.23												Al 1.47	Si 1.74	P 2.06	S 2.44	Cl 2.83	Ar
4	K 0.91	Ca 1.04	Sc 1.20	Ti 1.32	V 1.45	Cr 1.56	Mn 1.6	Fe 1.64	Co 1.7	Ni 1.75	Cu 1.75	Zn 1.66	Ga 1.82	Ge 2.02	As 2.2	Se 2.48	Br 2.74	Kr	
5	Rb 0.89	Sr 0.97	Y 1.11	Zr 1.22	Nb 1.23	Mo 1.3	Tc 1.36	Ru 1.42	Rh 1.45	Pd 1.35	Ag 1.42	Cd 1.46	In 1.49	Sn 1.72	Sb 1.82	Te 2.01	I 2.21	Xe	
6	Cs 0.86	Ba 0.97		Hf 1.23	Ta 1.33	W 1.4	Re 1.46	Os 1.52	Ir 1.55	Pt 1.44	Au 1.42	Hg 1.44	Tl 1.44	Pb 1.55	Bi 1.67	Po 1.76	At 1.96	Rn	
7	Fr 0.86	Ra 0.97		Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub							
				La 1.08	Ce 1.06	Pr 1.07	Nd 1.07	Pm 1.07	Sm 1.07	Eu 1.01	Gd 1.11	Tb 1.10	Dy 1.10	Ho 1.10	Er 1.11	Tm 1.11	Yb 1.06	Lu 1.14	
				Ac 1.00	Th 1.11	Pa 1.14	U 1.22	Np 1.22	Pu 1.22	Am 1.2	Cm 1.2	Bk 1.2	Cf 1.2	Es 1.2	Fm 1.2	Md 1.2	No	Lr	

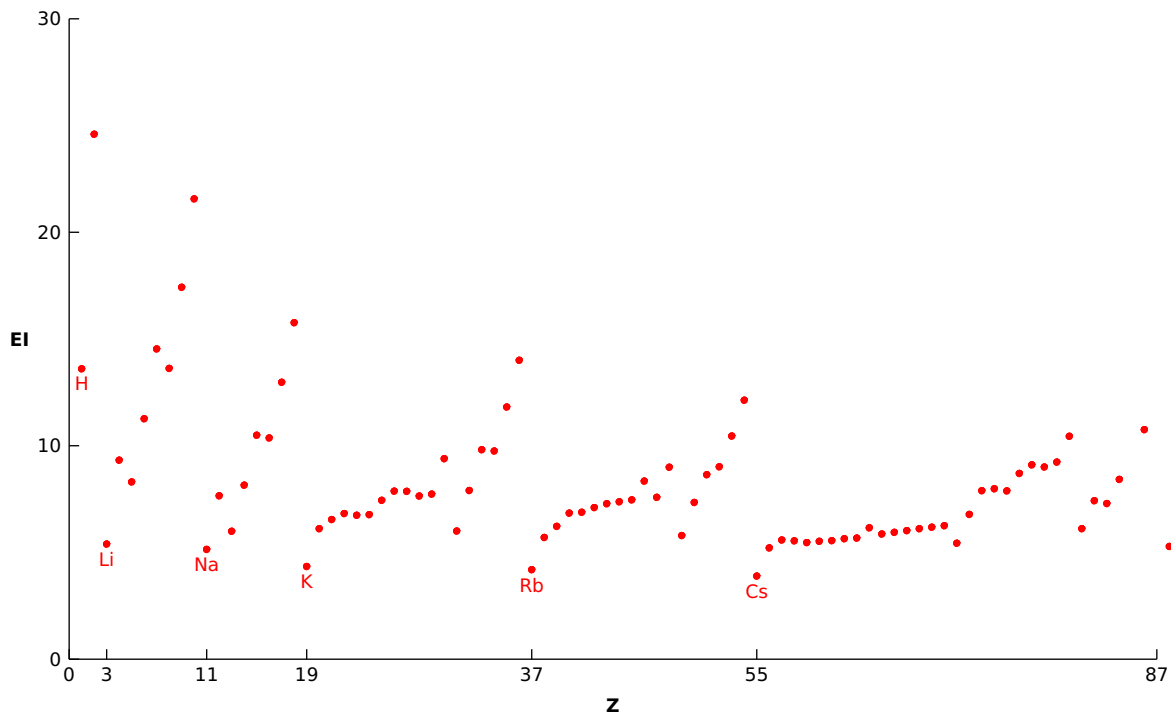
Électronégativité



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	H 13.6																	He 24.59	
2	Li 5.39	Be 9.32												B 8.30	C 11.26	N 14.53	O 13.62	F 17.42	Ne 21.56
3	Na 5.14	Mg 7.65												Al 5.99	Si 8.15	P 10.49	S 10.36	Cl 12.97	Ar 15.76
4	K 4.34	Ca 6.11	Sc 6.54	Ti 6.82	V 6.74	Cr 6.77	Mn 7.44	Fe 7.87	Co 7.86	Ni 7.64	Cu 7.73	Zn 9.39	Ga 6.00	Ge 7.90	As 9.81	Se 9.75	Br 11.81	Kr 14.00	
5	Rb 4.19	Sr 5.70	Y 6.22	Zr 6.84	Nb 6.88	Mo 7.10	Tc 7.28	Ru 7.37	Rh 7.46	Pd 8.34	Ag 7.58	Cd 8.99	In 5.79	Sn 7.34	Sb 8.64	Te 9.01	I 10.45	Xe 12.13	
6	Cs 3.89	Ba 5.21		Hf 6.78	Ta 7.89	W 7.98	Re 7.88	Os 8.7	Ir 9.1	Pt 9.0	Au 9.23	Hg 10.44	Tl 6.11	Pb 7.42	Bi 7.29	Po 8.42	At	Rn 10.75	
7	Fr 5.28	Ra		Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub							
				La 5.58	Ce 5.54	Pr 5.46	Nd 5.52	Pm 5.55	Sm 5.64	Eu 5.67	Gd 6.15	Tb 5.86	Dy 5.94	Ho 6.02	Er 6.11	Tm 6.18	Yb 6.25	Lu 5.43	
				Ac 5.2	Th 6.1	Pa 5.9	U 6.19	Np 6.27	Pu 6.06	Am 5.99	Cm 6.02	Bk 6.23	Cf 6.30	Es 6.42	Fm 6.5	Md 6.6	No 6.7	Lr	

Énergie d'ionisation (eV)

Énergie d'ionisation (eV)



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	H $1s^1$																	He $1s^2$	
2	Li $2s^1$	Be $2s^2$												B $2s^2 2p^1$	C $2s^2 2p^2$	N $2s^2 2p^3$	O $2s^2 2p^4$	F $2s^2 2p^5$	Ne $2s^2 2p^6$
3	Na $3s^1$	Mg $3s^2$												Al $3s^2 3p^1$	Si $3s^2 3p^2$	P $3s^2 3p^3$	S $3s^2 3p^4$	Cl $3s^2 3p^5$	Ar $3s^2 3p^6$
4	K $4s^1$	Ca $4s^2$	Sc $3d^1 4s^2$	Ti $3d^2 4s^2$	V $3d^3 4s^2$	Cr $3d^5 4s^1$	Mn $3d^5 4s^2$	Fe $3d^6 4s^2$	Co $3d^7 4s^2$	Ni $3d^8 4s^2$	Cu $3d^{10} 4s^1$	Zn $3d^{10} 4s^2$	Ga $...4p^1$	Ge $...4p^2$	As $...4p^3$	Se $...4p^4$	Br $...4p^5$	Kr $...4p^6$	
5	Rb $5s^1$	Sr $5s^2$	Y $4d^1 5s^2$	Zr $4d^2 5s^2$	Nb $4d^4 5s^1$	Mo $4d^5 5s^1$	Tc $4d^5 5s^2$	Ru $4d^7 5s^1$	Rh $4d^8 5s^1$	Pd $4d^{10} 4s^1$	Ag $4d^{10} 5s^1$	Cd $4d^{10} 5s^2$	In $...5p^1$	Sn $...5p^2$	Sb $...5p^3$	Te $...5p^4$	I $...5p^5$	Xe $...5p^6$	
6	Cs	Ba		Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	
7	Fr	Ra		Rf	Db	Sg	Bh	Hs	Mt	Uun	Uuu	Uub							
				La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	
				Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr	

Couche de valence

Références

- [1] J. Sarrazin, M. Verdaguer, *L'oxydoréduction*, (Ellipses, 1991)
- [2] G. Aylward, T. Findlay, *SI Chemical data*, (John Wiley Sons, 1994)