

(Mendeleev's) Periodic Table of Chemical Elements via TikZ

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------------|---------------------------------------|-------------------------------------|--|---------------------------------------|--|--------------------------------------|--|---------------------------------------|---|--|--------------------------------------|--|---|---|--|---|--|--------|--|---------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|--------------------------------------|---------------------------------------|--|-----------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|------------------------------------|
| 1 | 1 IA | | | | | | | | | | | | | | | | | | | | 18 VIIIA | | | | | | | | | | | | | | | | | |
| 1 | 1 1.0079 H Hydrogen | | | | | | | | | | | | | | | | | | | | | 2 4.0025 He Helium | | | | | | | | | | | | | | | | |
| 2 | 2 IIA | | | | | | | | | | | | 5 10.811 B Boron | 6 12.011 C Carbon | 7 14.007 N Nitrogen | 8 15.999 O Oxygen | 9 18.998 F Flourine | 10 20.180 Ne Neon | | | | | | | | | | | | | | | | | | | | |
| 3 | 3 6.941 Li Lithium | 4 9.0122 Be Beryllium | | | | | | | | | | | 13 26.982 Al Aluminium | 14 28.086 Si Silicon | 15 30.974 P Phosphorus | 16 32.065 S Sulphur | 17 35.453 Cl Chlorine | 18 39.948 Ar Argon | | | | | | | | | | | | | | | | | | | | |
| 4 | 3 IIIA | | 4 IVB | | 5 VB | | 6 VIB | | 7 VIIB | | 8 VIIIB | | 9 VIIIB | | 10 VIIIB | | 11 IB | | 12 IIB | | 19 39.098 K Potassium | 20 40.078 Ca Calcium | 21 44.956 Sc Scandium | 22 47.867 Ti Titanium | 23 50.942 V Vanadium | 24 51.996 Cr Chromium | 25 54.938 Mn Manganese | 26 55.845 Fe Iron | 27 58.933 Co Cobalt | 28 58.693 Ni Nickel | 29 63.546 Cu Copper | 30 65.39 Zn Zinc | 31 69.723 Ga Gallium | 32 72.64 Ge Germanium | 33 74.922 As Arsenic | 34 78.96 Se Selenium | 35 79.904 Br Bromine | 36 83.8 Kr Krypton |
| 5 | 37 85.468 Rb Rubidium | 38 87.62 Sr Strontium | 39 88.906 Y Yttrium | 40 91.224 Zr Zirconium | 41 92.906 Nb Niobium | 42 95.94 Mo Molybdenum | 43 96 Tc Technetium | 44 101.07 Ru Ruthenium | 45 102.91 Rh Rhodium | 46 106.42 Pd Palladium | 47 107.87 Ag Silver | 48 112.41 Cd Cadmium | 49 114.82 In Indium | 50 118.71 Sn Tin | 51 121.76 Sb Antimony | 52 127.6 Te Tellurium | 53 126.9 I Iodine | 54 131.29 Xe Xenon | | | | | | | | | | | | | | | | | | | | |
| 6 | 55 132.91 Cs Caesium | 56 137.33 Ba Barium | 57-71 La-Lu Lanthanide | 72 178.49 Hf Hafnium | 73 180.95 Ta Tantalum | 74 183.84 W Tungsten | 75 186.21 Re Rhenium | 76 190.23 Os Osmium | 77 192.22 Ir Iridium | 78 195.08 Pt Platinum | 79 196.97 Au Gold | 80 200.59 Hg Mercury | 81 204.38 Tl Thallium | 82 207.2 Pb Lead | 83 208.98 Bi Bismuth | 84 209 Po Polonium | 85 210 At Astatine | 86 222 Rn Radon | | | | | | | | | | | | | | | | | | | | |
| 7 | 87 223 Fr Francium | 88 226 Ra Radium | 89-103 Ac-Lr Actinide | 104 261 Rf Rutherfordium | 105 262 Db Dubnium | 106 266 Sg Seaborgium | 107 264 Bh Bohrium | 108 277 Hs Hassium | 109 268 Mt Meitnerium | 110 281 Ds Darmstadtium | 111 280 Rg Roentgenium | 112 285 Uub Ununbium | 113 284 Uut Ununtrium | 114 289 Uuq Ununquadium | 115 288 Uup Ununpentium | 116 293 Uuh Ununhexium | 117 292 Uus Ununseptium | 118 294 Uuo Ununoctium | | | | | | | | | | | | | | | | | | | | |

| | |
|--------|------|
| Z | mass |
| Symbol | Name |

- Alkali Metal
- Alkaline Earth Metal
- Metal
- Metalloid
- Non-metal
- Halogen
- Noble Gas
- Lanthanide/Actinide
- synthetic element

| | | | | | | | | | | | | | | |
|--|--------------------------------------|---|--|--------------------------------------|---------------------------------------|---------------------------------------|---|--------------------------------------|---|---------------------------------------|-------------------------------------|--|--|---------------------------------------|
| 57 138.91 La Lanthanum | 58 140.12 Ce Cerium | 59 140.91 Pr Praseodymium | 60 144.24 Nd Neodymium | 61 145 Pm Promethium | 62 150.36 Sm Samarium | 63 151.96 Eu Europium | 64 157.25 Gd Gadolinium | 65 158.93 Tb Terbium | 66 162.50 Dy Dysprosium | 67 164.93 Ho Holmium | 68 167.26 Er Erbium | 69 168.93 Tm Thulium | 70 173.04 Yb Ytterbium | 71 174.97 Lu Lutetium |
| 89 227 Ac Actinium | 90 232.04 Th Thorium | 91 231.04 Pa Protactinium | 92 238.03 U Uranium | 93 237 Np Neptunium | 94 244 Pu Plutonium | 95 243 Am Americium | 96 247 Cm Curium | 97 247 Bk Berkelium | 98 251 Cf Californium | 99 252 Es Einsteinium | 100 257 Fm Fermium | 101 258 Md Mendelevium | 102 259 No Nobelium | 103 262 Lr Lawrencium |

Classification périodique des éléments

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------------|--|---------------------------------------|--|--------------------------------------|---------------------------------------|--|--|---------------------------------------|---|--|--------------------------------------|---------------------------------------|---|---|--|---|--|--|---------------------------------------|---------------------------------------|------------------------------------|-------------------------------------|------------------------------------|--|--|----------|
| 1 | 1 IA | | | | | | | | | | | | | | | | | | | | | | | | | | 18 VIIIA |
| 1 | 1 1.0079 H Hydrogène | 2 IIA | | | | | | | | | | | | | | | | 13 IIIA | 14 IVA | 15 VA | 16 VIA | 17 VIIA | 2 4.0025 He Hélium | | | | |
| 2 | 3 6.941 Li Lithium | 4 9.0122 Be Béryllium | | | | | | | | | | | | | | | | | 5 10.811 B Bore | 6 12.011 C Carbone | 7 14.007 N Azote | 8 15.999 O Oxygène | 9 18.998 F Fluor | 10 20.180 Ne Néon | | | |
| 3 | 11 22.990 Na Sodium | 12 24.305 Mg Magnésium | | | | | | | | | | | | | | | | | 13 26.982 Al Aluminium | 14 28.086 Si Silicium | 15 30.974 P Phosphore | 16 32.065 S Soufre | 17 35.453 Cl Chlore | 18 39.948 Ar Argon | | | |
| 4 | 19 39.098 K Potassium | 20 40.078 Ca Calcium | 21 44.956 Sc Scandium | 22 47.867 Ti Titane | 23 50.942 V Vanadium | 24 51.996 Cr Chrome | 25 54.938 Mn Manganèse | 26 55.845 Fe Fer | 27 58.933 Co Cobalt | 28 58.693 Ni Nickel | 29 63.546 Cu Cuivre | 30 65.39 Zn Zinc | 31 69.723 Ga Gallium | 32 72.64 Ge Germanium | 33 74.922 As Arsenic | 34 78.96 Se Sélénium | 35 79.904 Br Brome | 36 83.8 Kr Krypton | | | | | | | | | |
| 5 | 37 85.468 Rb Rubidium | 38 87.62 Sr Strontium | 39 88.906 Y Yttrium | 40 91.224 Zr Zirconium | 41 92.906 Nb Niobium | 42 95.94 Mo Molybdène | 43 96 Tc Technétium | 44 101.07 Ru Ruthénium | 45 102.91 Rh Rhodium | 46 106.42 Pd Palladium | 47 107.87 Ag Argent | 48 112.41 Cd Cadmium | 49 114.82 In Indium | 50 118.71 Sn Étain | 51 121.76 Sb Antimoine | 52 127.6 Te Tellure | 53 126.9 I Iode | 54 131.29 Xe Xénon | | | | | | | | | |
| 6 | 55 132.91 Cs Césium | 56 137.33 Ba Barium | 57-71 La-Lu Lanthanides | 72 178.49 Hf Hafnium | 73 180.95 Ta Tantale | 74 183.84 W Tungstène | 75 186.21 Re Rhenium | 76 190.23 Os Osmium | 77 192.22 Ir Iridium | 78 195.08 Pt Platine | 79 196.97 Au Or | 80 200.59 Hg Mercure | 81 204.38 Tl Thallium | 82 207.2 Pb Plomb | 83 208.98 Bi Bismuth | 84 209 Po Polonium | 85 210 At Astate | 86 222 Rn Radon | | | | | | | | | |
| 7 | 87 223 Fr Francium | 88 226 Ra Radium | 89-103 Ac-Lr Actinides | 104 261 Rf Rutherfordium | 105 262 Db Dubnium | 106 266 Sg Seaborgium | 107 264 Bh Bohrium | 108 277 Hs Hassium | 109 268 Mt Meitnerium | 110 281 Ds Darmstadtium | 111 280 Rg Roentgenium | 112 285 Uub Ununbium | 113 284 Uut Ununtrium | 114 289 Uuq Ununquadium | 115 288 Uup Ununpentium | 116 293 Uuh Ununhexium | 117 292 Uus Ununseptium | 118 294 Uuo Ununoctium | | | | | | | | | |

| | |
|----------------|-------|
| Z | masse |
| Symbole | |
| Nom | |

- Alcalins
- Alcalino terreux
- Métal
- Métalloïde
- Non-métal
- Halogène
- Gaz rares
- Lanthanide/Actinide
- Éléments synthétiques
- Règle de Sanderson

Lanthanides : 6

Actinides : 7

| | | | | | | | | | | | | | | |
|---------------------------------------|--------------------------------------|---|--------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|---|--------------------------------------|---|---------------------------------------|-------------------------------------|--|--|---------------------------------------|
| 57 138.91 La Lanthane | 58 140.12 Ce Cérium | 59 140.91 Pr Praséodyme | 60 144.24 Nd Néodyme | 61 145 Pm Prométhium | 62 150.36 Sm Samarium | 63 151.96 Eu Europium | 64 157.25 Gd Gadolinium | 65 158.93 Tb Terbium | 66 162.50 Dy Dysprosium | 67 164.93 Ho Holmium | 68 167.26 Er Erbium | 69 168.93 Tm Thulium | 70 173.04 Yb Ytterbium | 71 174.97 Lu Lutetium |
| 89 227 Ac Actinium | 90 232.04 Th Thorium | 91 231.04 Pa Protactinium | 92 238.03 U Uranium | 93 237 Np Neptunium | 94 244 Pu Plutonium | 95 243 Am Américium | 96 247 Cm Curium | 97 247 Bk Berkélium | 98 251 Cf Californium | 99 252 Es Einsteinium | 100 257 Fm Fermium | 101 258 Md Mendelévium | 102 259 No Nobélium | 103 262 Lr Lawrencium |

Bloc s

| | | |
|---|----|----|
| 1 | 1 | 2 |
| 2 | 3 | 4 |
| 3 | 11 | 12 |
| 4 | 19 | 20 |
| 5 | 37 | 38 |
| 6 | 55 | 56 |
| 7 | 87 | 88 |

Blocs de la classification périodique des éléments

Bloc d

| | | | | | | | | | |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| 57 à 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 89 à 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 |

Bloc p

| | | | | | |
|-----|-----|-----|-----|-----|-----|
| 13 | 14 | 15 | 16 | 17 | 18 |
| 5 | 6 | 7 | 8 | 9 | 10 |
| 13 | 14 | 15 | 16 | 17 | 18 |
| 31 | 32 | 33 | 34 | 35 | 36 |
| 49 | 50 | 51 | 52 | 53 | 54 |
| 81 | 82 | 83 | 84 | 85 | 86 |
| 113 | 114 | 115 | 116 | 117 | 118 |

| | | | | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 6 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 |
| 7 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 |

Bloc f

Bloc d

Classification périodique des éléments

Principales familles d'éléments chimiques

| | | | | | | | | | | | | | | | | | | | |
|---|----|----|--|--|--|--|--|--|--|--|--|--|----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 2 | Métaux de transition $ns^2(n-1)d^x \quad x \in [1; 10]$ | | | | | | | | | | 13 | 14 | 15 | 16 | 17 | 18 | |
| 1 | H | | | | | | | | | | | | 5 | B | C | N | O | F | He |
| 2 | 3 | 4 | | | | | | | | | | | 6 | Al | Si | P | S | Cl | Ar |
| 3 | 11 | 12 | | | | | | | | | | | 7 | Ga | Ge | As | Se | Br | Kr |
| 4 | 19 | 20 | | | | | | | | | | | 8 | In | Sn | Sb | Te | I | Xe |
| 5 | 37 | 38 | | | | | | | | | | | 9 | Tl | Pb | Bi | Po | At | Rn |
| 6 | 55 | 56 | | | | | | | | | | | 10 | Uut | Uuq | Uup | Uuh | Uus | Uuo |
| 7 | 87 | 88 | | | | | | | | | | | 11 | | | | | | |

alcalins ns^1

alcalino terreux ns^2

gaz rares ns^2np^5

halogènes ns^2np^5

chalcogènes ns^2np^4

Métaux de transition
 $ns^2(n-1)d^x \quad x \in [1; 10]$

| | | | | | | | | | |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| Sc | Ti | V | Cr | Mn | Fe | Co | Ni | Cu | Zn |
| 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 |
| Y | Zr | Nb | Mo | Tc | Ru | Rh | Pd | Ag | Cd |
| 57 à 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| | Hf | Ta | W | Re | Os | Ir | Pt | Au | Hg |
| 89 à 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 |
| | Rf | Db | Sg | Bh | Hs | Mt | Ds | Rg | Uub |

| | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|
| 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| La | Ce | Pr | Nd | Pm | Sm | Eu | Gd | Tb | Dy | Ho | Er | Tm | Yb |
| 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 |
| Ac | Th | Pa | U | Np | Pu | Am | Cm | Bk | Cf | Es | Fm | Md | No |

| |
|-----|
| 71 |
| Lu |
| 103 |
| Lr |

lanthanides $6s^24f^x \quad x \in [1; 14]$

actinides $7s^25f^x \quad x \in [1; 14]$