

Physical constants

Atomic mass unit	amu	1.66054×10^{-27} kg
Avogadro's number	N	6.02214×10^{23} mol ⁻¹
Bohr radius	a_0	5.292×10^{-11} m
Boltzmann constant	k	1.38066×10^{-23} J·K ⁻¹
Charge of an electron	e	1.60218×10^{-19} C
Faraday constant	F	96,485 C·mol ⁻¹
Gas constant	R	8.31451 J·K ⁻¹ ·mol ⁻¹ 0.08206 L·atm·K ⁻¹ ·mol ⁻¹
Mass of an electron	m_e	9.10939×10^{-31} kg 5.48580×10^{-4} amu
Mass of a neutron	m_n	1.67493×10^{-27} kg 1.00866 amu
Mass of a proton	m_p	1.67262×10^{-27} kg 1.00728 amu
Planck's constant	h	6.62608×10^{-34} J·s
Speed of light	c	2.99792458×10^8 m·s ⁻¹

Conversion factors

$$1 \text{ pascal (pa)} = 1 \text{ N}\cdot\text{m}^{-2} = 1 \text{ kg}\cdot\text{m}^{-1}\cdot\text{s}^{-2} \qquad 1 \text{ cal} = 4.184 \text{ joules}$$

$$1 \text{ atm} = 101,325 \text{ pa} = 760 \text{ torr (mmHg)} \qquad 1 \text{ joule} = 1 \text{ kg}\cdot\text{m}^2\cdot\text{s}^{-2}$$

$$\text{K} = ^\circ\text{C} + 273.15$$

Spectrochemical series:

