

SELECTED PHYSICAL CONSTANTS**

Quantity	Quoted Value	S*	SI Unit	Symbol
Atomic mass constant	$1.660\,538\,86 \times 10^{-27}$	28	kg	m_u
Avogadro constant	$6.022\,1415 \times 10^{23}$	10	mol^{-1}	N_A
Bohr magneton	$927.4\,00\,949 \times 10^{-26}$	80	$\text{J}\cdot\text{T}^{-1}$	μ_B
Boltzmann constant	$1.380\,6505 \times 10^{-23}$	24	$\text{J}\cdot\text{K}^{-1}$	$k (= R/N_A)$
Electron charge	$1.602\,176\,53 \times 10^{-19}$	14	C	$-e$
Electron specific charge	$-1.758\,820\,12 \times 10^{11}$	15	$\text{C}\cdot\text{kg}^{-1}$	$-e/m_e$
Electron mass	$9.109\,3826 \times 10^{-31}$	16	kg	m_e
Faraday constant	$9.648\,533\,83 \times 10^4$	83	$\text{C}\cdot\text{mol}^{-1}$	F
Fine-structure constant	0.007 297 352 568	24	–	α
Josephson constant	$483.5\,97\,879 \times 10^{12}$	41	$\text{Hz}\cdot\text{V}^{-1}$	$2e/h$
Magnetic flux quantum	$2.067\,833\,72 \times 10^{-15}$	18	Wb	ϕ_0
Molar gas constant	8.314 472	15	$\text{J}\cdot\text{mol}^{-1}\cdot\text{K}^{-1}$	R
Newtonian constant of gravitation	6.6742×10^{-11}	10	$\text{m}^3\cdot\text{kg}^{-1}\cdot\text{s}^{-2}$	G
Magnetic constant	$4\pi \times 10^{-7}$	d	H/m	μ_0
Electric constant	$8.854\,1878\dots \times 10^{-12}$	d	F/m	ϵ_0
Planck constant	$6.626\,0693 \times 10^{-34}$	11	J·s	h
Quantum of circulation	$3.636\,947\,550 \times 10^{-4}$	24	$\text{J}\cdot\text{s}\cdot\text{kg}^{-1}$	$\hbar/2m_e$
Rydberg constant	10 973 731.568 525	73	m^{-1}	R_∞
Molar volume of ideal gas (273.15 K, 100 kPa)	$22.710\,981 \times 10^{-3}$	40	$\text{m}^3\cdot\text{mol}^{-1}$	V_m
Stefan-Boltzmann constant	$5.670\,400 \times 10^{-8}$	40	$\text{W}\cdot\text{K}^{-4}\cdot\text{m}^{-2}$	σ
Speed of light	299 792 458	d	$\text{m}\cdot\text{s}^{-1}$	c

* The numbers in this column are the one-standard-deviation uncertainties in the last digits of the quoted value. The symbol **d** stands here for defined value.

** Drawn from Committee on Data for Science and Technology (CODATA) 2002.