

Summary of physical constants^a

speed of light in vacuum	c	2.997 924 58	$\times 10^8 \text{ m s}^{-1}$
permeability of vacuum	μ_0	4π =12.566 370 614 ...	$\times 10^{-7} \text{ H m}^{-1}$ $\times 10^{-7} \text{ H m}^{-1}$
permittivity of vacuum	ϵ_0	$1/(\mu_0 c^2)$ =8.854 187 817 ...	F m^{-1} $\times 10^{-12} \text{ F m}^{-1}$
constant of gravitation	G	6.672 59(85)	$\times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ s}^{-2}$
Planck constant	h	6.626 075 5(40)	$\times 10^{-34} \text{ J s}$
$h/(2\pi)$	\hbar	1.054 572 66(63)	$\times 10^{-34} \text{ J s}$
elementary charge	e	1.602 177 33(49)	$\times 10^{-19} \text{ C}$
magnetic flux quantum, $h/(2e)$	Φ_0	2.067 834 61(61)	$\times 10^{-15} \text{ Wb}$
electronvolt	eV	1.602 177 33(49)	$\times 10^{-19} \text{ J}$
electron mass	m_e	9.109 389 7(54)	$\times 10^{-31} \text{ kg}$
proton mass	m_p	1.672 623 1(10)	$\times 10^{-27} \text{ kg}$
proton/electron mass ratio	m_p/m_e	1 836.152 701(37)	
unified atomic mass unit	u	1.660 540 2(10)	$\times 10^{-27} \text{ kg}$
fine-structure constant, $\mu_0 c e^2/(2h)$	α	7.297 353 08(33)	$\times 10^{-3}$
inverse	$1/\alpha$	137.035 989 5(61)	
Rydberg constant, $m_e c \alpha^2/(2h)$	R_∞	1.097 373 153 4(13)	$\times 10^7 \text{ m}^{-1}$
Avogadro constant	N_A	6.022 136 7(36)	$\times 10^{23} \text{ mol}^{-1}$
Faraday constant, $N_A e$	F	9.648 530 9(29)	$\times 10^4 \text{ C mol}^{-1}$
molar gas constant	R	8.314 510(70)	$\text{J mol}^{-1} \text{ K}^{-1}$
Boltzmann constant, R/N_A	k	1.380 658(12)	$\times 10^{-23} \text{ J K}^{-1}$
Stefan-Boltzmann constant, $\pi^2 k^4/(60 \hbar^3 c^2)$	σ	5.670 51(19)	$\times 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$
Bohr magneton, $e \hbar/(2m_e)$	μ_B	9.274 015 4(31)	$\times 10^{-24} \text{ J T}^{-1}$

^aNumbers in parentheses show the 1- σ uncertainty in the previous two digits.