Fundamental constants 2002

Quantity	Symbol	2002 Value (standard uncertainty)*	Unit	Relative standard uncertainty u_r
speed of light in vacuum	c_0	299 792 458	m s^{-1}	(exact)
magnetic constant	μ_0	$4\pi \times 10^{-7}$	H m^{-1}	(exact)
electric constant	$\varepsilon_0 = 1/\mu_0 c_0^2$	8.854 187 817 …	$\times 10^{-12}$ F m^{-1}	(exact)
Planck constant	h	6.626 069 3 (11)	$\times 10^{-34}$ J s	1.7×10^{-7}
elementary charge (charge on a proton)	e	1.602 176 53 (14)	$\times 10^{-19}$ C	8.5×10^{-8}
electron rest mass	m_e	9.109 382 6 (16)	$\times 10^{-31}$ kg	1.7×10^{-7}
proton rest mass	m_p	1.672 621 71 (29)	$\times 10^{-27}$ kg	1.7×10^{-7}
atomic mass constant (dalton, or unified atomic mass unit, $m(^{12}\text{C})/12$)	m_u $= \text{Da} = \text{u}$	1.660 538 86 (28)	$\times 10^{-27}$ kg	1.7×10^{-7}
Avogadro constant	$L,\ N_A$	6.022 141 5 (10)	$\times 10^{23}$ mol^{-1}	1.7×10^{-7}
Boltzmann constant	$k,\ (k_B)$	1.380 650 5 (24)	$\times 10^{-23}$ J K^{-1}	1.8×10^{-6}
Faraday constant	F	96 485.33 83 (83)	C mol^{-1}	8.6×10^{-8}
gas constant	R	8.314 472 (15)	$\text{J mol}^{-1}\ \text{K}^{-1}$	1.7×10^{-6}
fine structure constant	α	7.297 352 568 (24)	$\times 10^{-3}$	3.3×10^{-9}
Bohr radius	a_0	0.529 177 210 8 (18)	$\times 10^{-10}$ m	3.3×10^{-9}
Hartree energy	E_h	4.359 744 17 (75)	$\times 10^{-18}$ J	1.7×10^{-7}
Rydberg constant	R_∞	10 973 731.568 525 (73)	m^{-1}	6.6×10^{-12}
Bohr magneton	μ_B	9.274 009 49 (80)	$\times 10^{-24}$ J T^{-1}	8.6×10^{-8}
Landé g factor for free electron	g	2.002 319 304 371 8 (75)		3.8×10^{-12}
nuclear magneton	μ_N	5.050 783 43 (43)	$\times 10^{-27}$ J T^{-1}	8.6×10^{-8}
Relative atomic mass of the electron	$A_r(e)$	5.485 799 094 5 (24)	$\times 10^{-4}$	4.4×10^{-10}
Newtonian constant of gravitation	G	6.674 2 (10)	$\times 10^{-11}$ $\text{m}^3\ \text{kg}^{-1}\ \text{s}^{-2}$	1.5×10^{-4}

*The standard uncertainty given in parenthesis (*i.e.* the estimated standard deviation of the value quoted), applies to the least significant digits of each constant.