An abbreviated list of the CODATA recommended values of the fundamental constants of physics and chemistry based on the 2014 adjustment

Quantity	Symbol	Numerical value	Unit	Relative std. uncert. u_r
speed of light in vacuum	c, c_0	299 792 458	m s^{-1}	exact
magnetic constant	μ_0	$4\pi \times 10^{-7}$	N A^{-2}	
		$= 12.566\,370\,614... \times 10^{-7}$	N A^{-2}	exact
electric constant $1/\mu_0 c^2$	ϵ_0	$8.854\,187\,817... \times 10^{-12}$	F m^{-1}	exact
Newtonian constant of gravitation	G	$6.674\,08(31) \times 10^{-11}$	m^3 kg^{-1} s^{-2}	4.7×10^{-5}
Planck constant	h	$6.626\,070\,040(81) \times 10^{-34}$	J s	1.2×10^{-8}
$h/2\pi$	$\hbar$	$1.054\,571\,800(13) \times 10^{-34}$	J s	1.2×10^{-8}
elementary charge	e	$1.602\,176\,6208(98) \times 10^{-19}$	C	6.1×10^{-9}
magnetic flux quantum $h/2e$	Φ_0	$2.067\,833\,831(13) \times 10^{-15}$	Wb	6.1×10^{-9}
conductance quantum $2e^2/h$	G_0	$7.748\,091\,7310(18) \times 10^{-5}$	S	2.3×10^{-10}
electron mass	m_e	$9.109\,383\,56(11) \times 10^{-31}$	kg	1.2×10^{-8}
proton mass	m_p	$1.672\,621\,898(21) \times 10^{-27}$	kg	1.2×10^{-8}
proton-electron mass ratio	m_p/m_e	1836.152 673 89(17)		9.5×10^{-11}
fine-structure constant $e^2/4\pi\epsilon_0\hbar c$	α	$7.297\,352\,5664(17) \times 10^{-3}$		2.3×10^{-10}
inverse fine-structure constant	α^{-1}	137.035 999 139(31)		2.3×10^{-10}
Rydberg constant $\alpha^2 m_e c/2h$	R_∞	10 973 731.568 508(65)	m^{-1}	5.9×10^{-12}
Avogadro constant	N_A, L	$6.022\,140\,857(74) \times 10^{23}$	mol^{-1}	1.2×10^{-8}
Faraday constant $N_A e$	F	96 485.332 89(59)	C mol^{-1}	6.2×10^{-9}
molar gas constant	R	8.314 4598(48)	J mol^{-1} K^{-1}	5.7×10^{-7}
Boltzmann constant R/N_A	k	$1.380\,648\,52(79) \times 10^{-23}$	J K^{-1}	5.7×10^{-7}
Stefan-Boltzmann constant $(\pi^2/60)k^4/\hbar^3 c^2$	σ	$5.670\,367(13) \times 10^{-8}$	W m^{-2} K^{-4}	2.3×10^{-6}
Non-SI units accepted for use with the SI				
electron volt (e/C) J	eV	$1.602\,176\,6208(98) \times 10^{-19}$	J	6.1×10^{-9}
(unified) atomic mass unit $\frac{1}{12}m(^{12}C)$	u	$1.660\,539\,040(20) \times 10^{-27}$	kg	1.2×10^{-8}

1 eV $(1\text{ eV}) = 1.602\,176\,565(35) \times 10^{-19}$ J $(1\text{ eV})/c^2 = 1.782\,661\,845(39) \times 10^{-36}$ kg $(1\text{ eV})/hc = 8.065\,544\,29(18) \times 10^5$ m^{-1} $(1\text{ eV})/h = 2.417\,989\,348(53) \times 10^{14}$ Hz

1 eV $(1\text{ eV})/k = 1.160\,4519(11) \times 10^4$ K 1 eV = 11604.519 K = 8065.54429 cm^{-1} = 1239.8 nm, 10 eV = 123.98 nm

$$1\text{ eV} = 96.4853365\text{ kJ mol}^{-1}$$

$$\lambda = \frac{c}{\nu},\ h\nu = \frac{hc}{\lambda}$$

$$1\text{ kJ mol}^{-1} = 10.3642692\text{ meV} \Leftrightarrow 120.3\text{ K}$$

$$1\text{ kcal mol}^{-1} = 43.3641\text{ meV} \Leftrightarrow 503.3\text{ K},\quad 1\text{ cal} = 4.184\text{ J}$$

$$300\text{ K} = 25.852\text{ meV} = 2.4943\text{ kJ mol}^{-1}$$

$$\mathrm{ATP^{4-} + H_2O \Rightarrow ADP^{3-} + HPO_4^{2-} + H^+ : \underbrace{-30.5\text{ kJ mol}^{-1}}_{=\Delta_r G^\oplus} = -316\text{ meV} \Leftrightarrow 3670\text{ K}}$$

$$1\text{ F} = 1\text{ C V}^{-1}$$

1 atom = 760 mmHg = 760 torr
=1013.25 hPa = 1013.25 mbar

$$\frac{e^2}{4\pi\epsilon_0 r} = \frac{[\mathrm{C}^2]}{[\mathrm{Fm^{-1}m}]} = [\mathrm{CV}] = [\mathrm{J}]$$

$$1\text{ D} = c^{-1} \times 10^{-21}\text{ C m} = 3.33564 \times 10^{-30}\text{ C m}$$

$$\frac{\text{Weber}}{\text{m}^2} = \frac{\text{N}}{\text{A m}} = \text{T} = 10^4\text{ Gauss}$$

Dirac constant
$\hbar = \frac{h}{2\pi} = 6.582119514(40) \times 10^{-16}$ eV s

a.u. of length: Bohr radius (bohr)				
$\alpha/4\pi R_\infty$	a_0	$0.529\,177\,210\,92(17) \times 10^{-10}$	m	
a.u. of energy: Hartree energy (hartree)				
$e^2/4\pi\epsilon_0 a_0 = 2R_\infty hc = \alpha^2 m_e c^2$	E_h	$4.359\,744\,34(19) \times 10^{-18}$	J	

$(1\ E_h) =$ 1 au = 27.211 385 05(60) eV
= 2 Ry = 2 × 13.605692525 eV