Fundamental Physical Constants — Defined constants

Quantity	Symbol	Value	Unit
hyperfine transition frequency of ^{133}Cs	$\Delta\nu_{\rm Cs}$	9 192 631 770	Hz
speed of light in vacuum	c	299 792 458	m s^{-1}
Planck constant*	h	$6.626\,070\,15 \times 10^{-34}$	J Hz^{-1}
	$\hbar$	$1.054\,571\,817\ldots \times 10^{-34}$	J s
elementary charge	e	$1.602\,176\,634 \times 10^{-19}$	C
Boltzmann constant	k	$1.380\,649 \times 10^{-23}$	J K^{-1}
Avogadro constant	$N_{\rm A}$	$6.022\,140\,76 \times 10^{23}$	mol^{-1}
luminous efficacy	$K_{\rm cd}$	683	lm W^{-1}
relative atomic mass† of ^{12}C	$A_{\rm r}(^{12}{\rm C})$	12	

* The energy of a photon with frequency ν expressed in unit Hz is $E = h\nu$ in J. Unitary time evolution of the state of this photon is given by $\exp(-iEt/\hbar)|\varphi\rangle$, where $|\varphi\rangle$ is the photon state at time $t = 0$ and time is expressed in unit s. The ratio $Et/\hbar$ is a phase.

† The relative atomic mass $A_{\rm r}(X)$ of particle X with mass $m(X)$ is defined by $A_{\rm r}(X) = m(X)/m_{\rm u}$, where $m_{\rm u} = m(^{12}{\rm C})/12$ is the atomic mass constant.