Fundamental Physical Constants — Adopted values

Quantity	Symbol	Value	Unit	Relative std. uncert. u_{r}
relative atomic mass[1] of ^{12}C	$A_{\mathrm{r}}(^{12}\mathrm{C})$	12		exact
molar mass constant	M_{u}	1×10^{-3}	kg mol^{-1}	exact
molar mass of ^{12}C	$M(^{12}\mathrm{C})$	12×10^{-3}	kg mol^{-1}	exact
conventional value of Josephson constant[2]	$K_{\mathrm{J}-90}$	483 597.9	GHz V^{-1}	exact
conventional value of von Klitzing constant[3]	$R_{\mathrm{K}-90}$	25 812.807	Ω	exact
standard-state pressure		100	kPa	exact
standard atmosphere		101.325	kPa	exact

[1] The relative atomic mass $A_{\mathrm{r}}(X)$ of particle X with mass $m(X)$ is defined by $A_{\mathrm{r}}(X) = m(X)/m_{\mathrm{u}}$, where $m_{\mathrm{u}} = m(^{12}\mathrm{C})/12 = M_{\mathrm{u}}/N_{\mathrm{A}} = 1$ u is the atomic mass constant, N_{A} is the Avogadro constant, and u is the atomic mass unit. Thus the mass of particle X in u is $m(X) = A_{\mathrm{r}}(X)$ u and the molar mass of X is $M(X) = A_{\mathrm{r}}(X)M_{\mathrm{u}}$.

[2] This is the value adopted internationally for realizing representations of the volt using the Josephson effect.

[3] This is the value adopted internationally for realizing representations of the ohm using the quantum Hall effect.