

Fundamental Physical Constants — Electromagnetic constants

Quantity	Symbol	Value	Unit	Relative std. uncert. u_r	
elementary charge	e	$1.602\,176\,634 \times 10^{-19}$	C	exact	
	e/\hbar	$1.519\,267\,447 \dots \times 10^{15}$	A J ⁻¹	exact	
magnetic flux quantum $2\pi\hbar/(2e)$	Φ_0	$2.067\,833\,848 \dots \times 10^{-15}$	Wb	exact	
conductance quantum $2e^2/2\pi\hbar$	G_0	$7.748\,091\,729 \dots \times 10^{-5}$	S	exact	
inverse of conductance quantum	G_0^{-1}	12 906.403 72 ...	Ω	exact	
Josephson constant $2e/h$	K_J	$483\,597.848\,4 \dots \times 10^9$	Hz V ⁻¹	exact	
von Klitzing constant $\mu_0 c/2\alpha = 2\pi\hbar/e^2$	R_K	25 812.807 45 ...	Ω	exact	
Bohr magneton $e\hbar/2m_e$	μ_B	$9.274\,010\,0783(28) \times 10^{-24}$	J T ⁻¹	3.0×10^{-10}	
		$5.788\,381\,8060(17) \times 10^{-5}$	eV T ⁻¹	3.0×10^{-10}	
	μ_B/h	$1.399\,624\,493\,61(42) \times 10^{10}$	Hz T ⁻¹	3.0×10^{-10}	
	μ_B/hc	46.686 447 783(14)	[m ⁻¹ T ⁻¹]*	3.0×10^{-10}	
	μ_B/k	0.671 713 815 63(20)	K T ⁻¹	3.0×10^{-10}	
	nuclear magneton $e\hbar/2m_p$	μ_N	$5.050\,783\,7461(15) \times 10^{-27}$	J T ⁻¹	3.1×10^{-10}
			$3.152\,451\,258\,44(96) \times 10^{-8}$	eV T ⁻¹	3.1×10^{-10}
		μ_N/h	7.622 593 2291(23)	MHz T ⁻¹	3.1×10^{-10}
		μ_N/hc	$2.542\,623\,413\,53(78) \times 10^{-2}$	[m ⁻¹ T ⁻¹]*	3.1×10^{-10}
		μ_N/k	$3.658\,267\,7756(11) \times 10^{-4}$	K T ⁻¹	3.1×10^{-10}

* The full description of m⁻¹ is cycles or periods per meter and that of m is meter per cycle (m/cycle). The scientific community is aware of the implied use of these units. It traces back to the conventions for phase and angle and the use of unit Hz versus cycles/s. No solution has been agreed upon.