

CONSTANTS

Natural Constants

a0	Bohr radius 5.291772E-11 m
alfa (α)	Fine structure constant ($e^2/(2*\epsilon_0*c*h)$) 0.007297353
c	Speed of light in vacuum (exact) 299792458 m/s
e0 (ε₀)	Permittivity of vacuum or electric constant ($1/(\mu_0*c^2)$) 8.8541878176E-12 A²*s²/(N*m²)
ec	Elementary charge (positron charge) 1.6021765E-19 C
F	Faraday constant (N*ec) 96485.34 C/mol
Fi0 (Φ)	Magnetic flux quantum ($h/2ec$) 2.0678337E-15 Wb
g	Standard acceleration due to gravity (approximately equal to the acceleration due to gravity on the Earth's surface) 9.8066500000 m/s²
G	Newtonian constant of gravitation 6.674E-11 m³/(kg*s²)
G0	Conductance quantum 0.00007748092 S
h	Planck constant 6.626069E-34 J*s
hb	Holds the Planck constant over 2π 1.0545717E-34 J*s
k	Boltzmann constant 1.380651E-23 J/K
LP	Planck length 1.6162E-35 m
md	Deuteron rest mass 3.3435833E-27 kg
me	Electron rest mass 9.109383E-31 kg
mn	Neutron rest mass 1.6749273E-27 kg
mp	Proton rest mass 1.6726217E-27 kg
mP	Planck mass 2.1765E-08 kg
mμ	Muon rest mass 1.8835314E-28 kg
μ0	Permeability of vacuum or magnetic constant. 1.2566370614E-06

μB	Bohr magneton 9.274009E-24 C*J*s/kg
μN	Nuclear magneton 5.050783E-27 C*J*s/kg
N	Avogadro constant 6.022142E+23 mol⁻¹
R	Molar gas constant (N*k) 8.31447 J/(mol*K)
Rinf	Rydberg constant 1.0973731568E+07 m⁻¹
s (σ)	Stefan-Boltzmann constant 5.6704E-8 J/(K⁴*s*m²)
tP	Planck time (LP/c) 5.3912E-44 s
u	Unified atomic mass unit (0.001 kg/mol)/N 1.6605389E-27 kg
Z0	Characteristic impedance of vacuum (μ_0*c) 376.730313461 Ω

Mathematical Constants

e	Euler constant 2.7182818285
π	Ratio of the circumference of a circle to its diameter 3.1415926536