

TABLE OF INFORMATION

Electron rest mass	$m_e = 9.11 \times 10^{-31}$ kilogram
Proton rest mass	$m_p = 1.672 \times 10^{-27}$ kilogram
Neutron rest mass	$m_n = 1.675 \times 10^{-27}$ kilogram
Magnitude of the electron charge	$e = 1.60 \times 10^{-19}$ coulomb
Bohr radius	$a_0 = 5.29 \times 10^{-11}$ meter
Avogadro number	$N_A = 6.02 \times 10^{23}$ per mole
Universal gas constant	$R = 8.314$ joules/(mole \cdot K) $= 0.0821$ L \cdot atm/(mole \cdot K)
Boltzmann constant	$k = 1.38 \times 10^{-23}$ joule/K
Planck constant	$h = 6.63 \times 10^{-34}$ joule \cdot second $= 4.14 \times 10^{-15}$ eV \cdot second
Speed of light	$c = 3.00 \times 10^8$ meters/second
Vacuum permittivity	$\epsilon_0 = 8.85 \times 10^{-12}$ coulomb ² /(newton \cdot meter ²)
Vacuum permeability	$\mu_0 = 4\pi \times 10^{-7}$ newton/ampere ²
Coulomb constant	$1/4\pi\epsilon_0 = 8.99 \times 10^9$ newtons \cdot meter ² /coulomb ²
Universal gravitational constant	$G = 6.67 \times 10^{-11}$ newton \cdot meter ² /kilogram ²
Acceleration due to gravity	$g = 9.80$ meters/second ²
1 atmosphere pressure	1 atm = 1.0×10^5 newtons/meter ² $= 1.0 \times 10^5$ pascals (Pa)
Faraday constant	$\mathcal{F} = 9.65 \times 10^4$ coulombs/mole
1 atomic mass unit	1 amu = 1.66×10^{-27} kilogram
1 electron volt	1 eV = 1.602×10^{-19} joule
For H ₂ O:	
heat of fusion	3.33×10^2 joules/gram
heat of vaporization	2.26×10^3 joules/gram
mean specific heat (liquid)	4.19 joules/(gram \cdot K)
Volume of 1 mole of ideal gas at 0°C, 1 atmosphere	22.4 liters