

Table 1: Fundamental Physical Constants (2006 CODATA recommended values [2])

Speed of Light	$c$	$2.997\,924\,58 \times 10^8 \text{ m/s (exact)}$
Permeability of Vacuum	$\mu_0$	$4\pi \times 10^{-7} \text{ N/A}^2 \text{ (exact)}$
Permittivity of Vacuum	$\epsilon_0$	$(\mu_0 c^2)^{-1} \text{ (exact)}$ $= 8.854\,187\,817 \dots \times 10^{-12} \text{ F/m}$
Planck's Constant	$h$	$6.626\,068\,96(33) \times 10^{-34} \text{ J}\cdot\text{s}$ $4.135\,667\,33(10) \times 10^{-15} \text{ eV}\cdot\text{s}$
	$\hbar$	$1.054\,571\,628(53) \times 10^{-34} \text{ J}\cdot\text{s}$ $6.582\,118\,99(16) \times 10^{-16} \text{ eV}\cdot\text{s}$
Elementary Charge	$e$	$1.602\,176\,487(40) \times 10^{-19} \text{ C}$
Bohr Magneton	$\mu_B$	$9.274\,009\,15(23) \times 10^{-24} \text{ J/T}$ $h \cdot 1.399\,624\,604(35) \text{ MHz/G}$
Atomic Mass Unit	u	$1.660\,538\,782(83) \times 10^{-27} \text{ kg}$
Electron Mass	$m_e$	$5.485\,799\,0943(23) \times 10^{-4} \text{ u}$
		$9.109\,382\,15(45) \times 10^{-31} \text{ kg}$
Bohr Radius	$a_0$	$0.529\,177\,208\,59(36) \times 10^{-10} \text{ m}$
Boltzmann's Constant	$k_B$	$1.380\,6504(24) \times 10^{-23} \text{ J/K}$

Table 2: Rubidium 87 Physical Properties.

Atomic Number	$Z$	37	
Total Nucleons	$Z + N$	87	
Relative Natural Abundance	$\eta(^{87}\text{Rb})$	27.83(2)%	[3]
Nuclear Lifetime	$\tau_n$	$4.88 \times 10^{10} \text{ yr}$	[3]
Atomic Mass	$m$	86.909 180 520(15) u	[4]
		$1.443\,160\,648(72) \times 10^{-25} \text{ kg}$	
Density at 25°C	$\rho_m$	$1.53 \text{ g/cm}^3$	[3]
Melting Point	$T_M$	39.30 °C	[3]
Boiling Point	$T_B$	688 °C	[3]
Specific Heat Capacity	$c_p$	0.363 J/g·K	[3]
Molar Heat Capacity	$C_p$	31.060 J/mol·K	[3]
Vapor Pressure at 25°C	$P_v$	$3.92(20) \times 10^{-7} \text{ torr}$	[5]
Nuclear Spin	$I$	3/2	
Ionization Limit	$E_I$	33 690.804 80(20) cm <sup>-1</sup>	[8]
		4.177 127 06(10) eV	