Chapter 14
Matter: Very hot and Very Cold

Useful approximation: kT = 1 eV when T = 10000k

Many processes require 15—10kT to occur

On average the energy per particle = kT

Boltzmann Constant = 1.38×10^{8}

The ratio of particles with enough energy to perform a particular physical change is given by:

$\frac{\varepsilon}{kT}$

where ε is the energy required for that process.

Generally: no of particles in state differing by energy ε:

Exp (-ε/kT)

known as the Boltxmann factor.

Joules

Divide by 1.6×10^{-19}

Electron Volts