

Boltzmann's constant

Note that we use k instead of R in the exponent.
 k_B is called Boltzmann's constant and it is related to R by:

$$k_B = \frac{R}{N_A}$$

where N_A is Avogadro's number.

$k_B T$ has units of Joules and is a measure of the thermal energy of a molecule

RT has units of Joules/mole and is a measure of the thermal energy of a mole