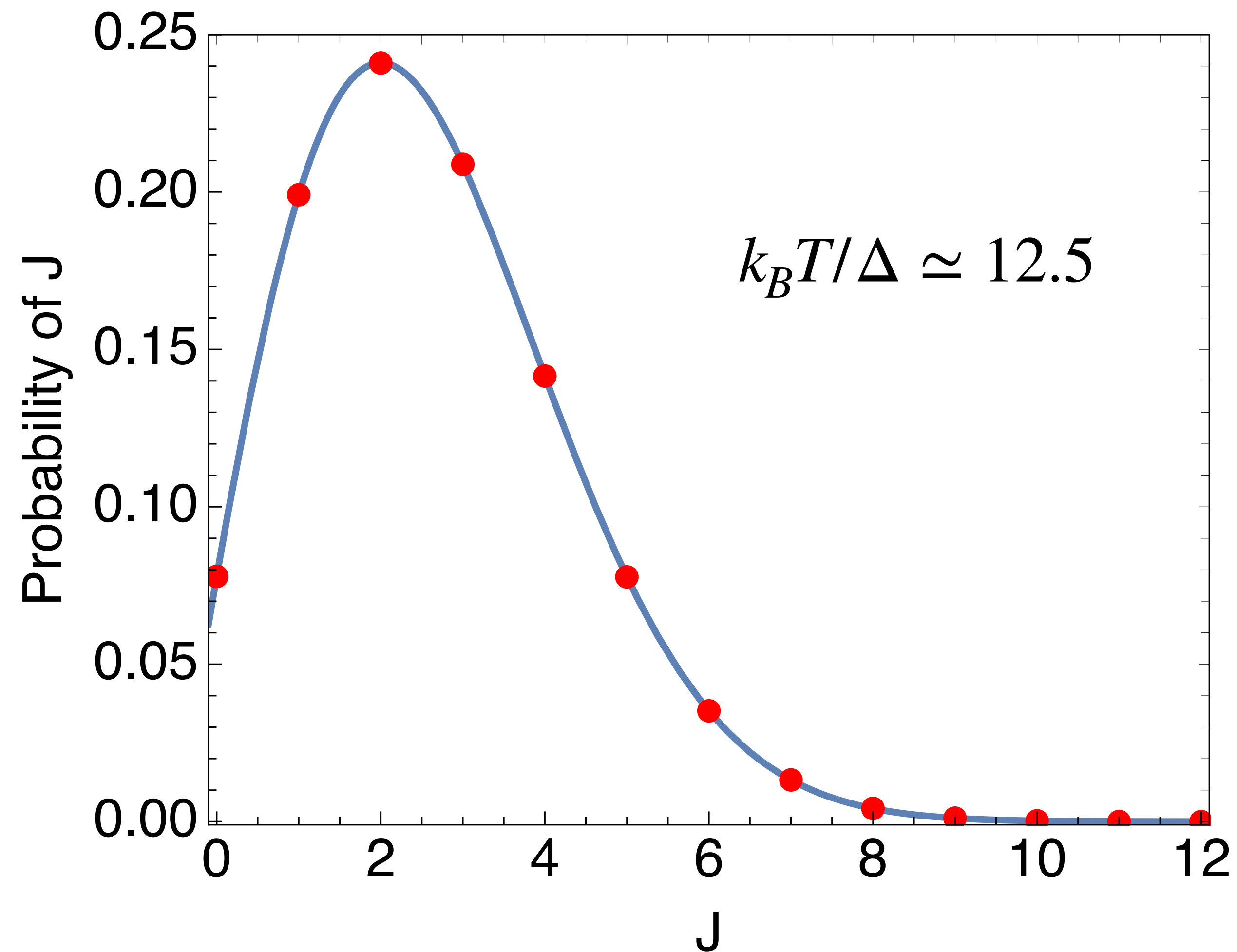
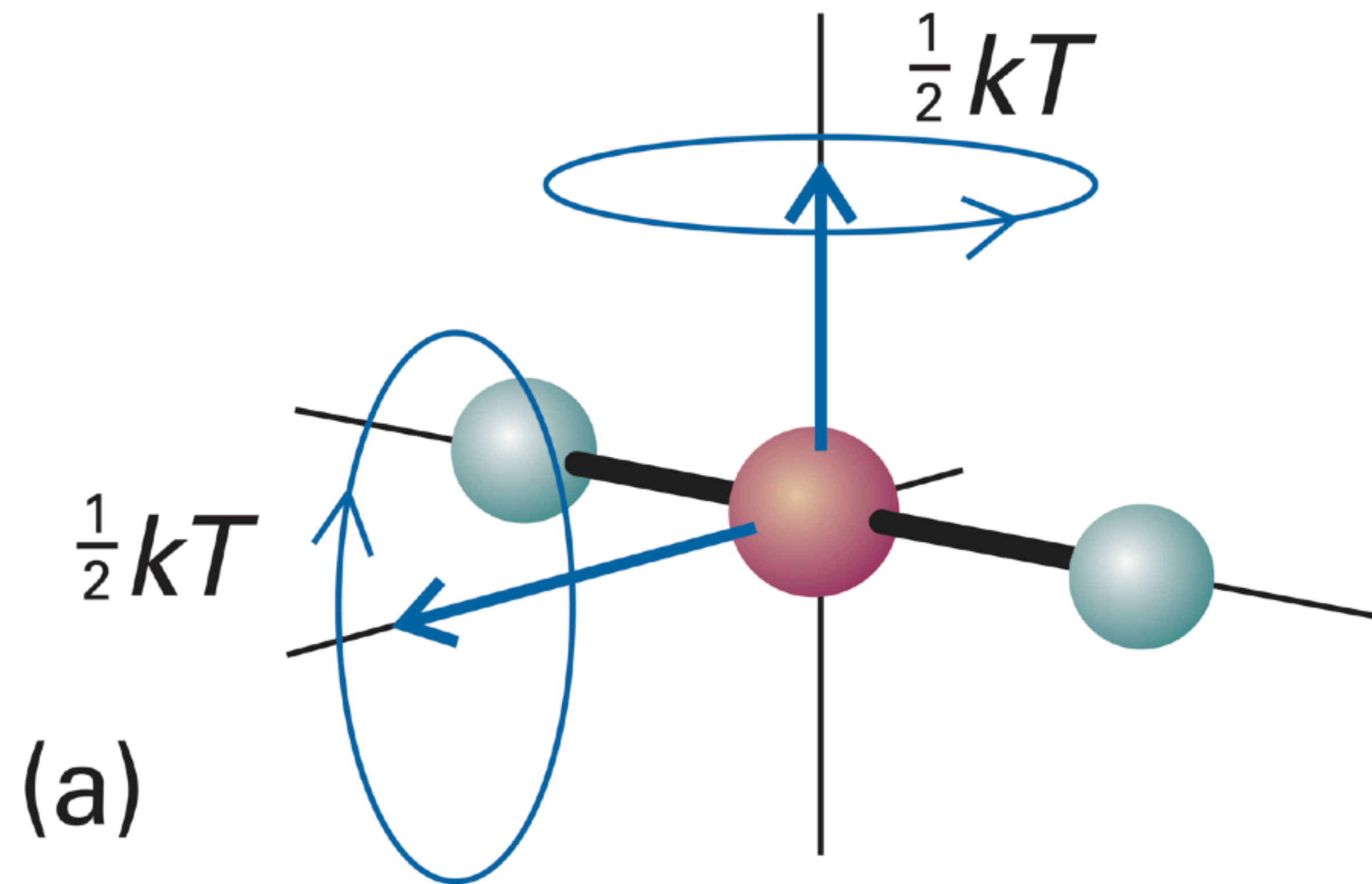


Rotational Partition Function



$$P_J = \frac{2J + 1}{Z_{\text{rot}}} e^{-\beta \Delta J(J+1)}$$

Energy of Diatomic



There are two rotational dof:

$$\langle \epsilon_{\text{rot}} \rangle = 2 \times \frac{1}{2}kT$$