

- (1) Probability of finding

 System in 5th conformation

 is 1 and zero in all

 other four conformentions
- 2) Megligible amount of thermal energy is available from surrounding

$$p_{1} = \frac{e^{-\frac{1}{2}} / k_{8} T}{Z} = \frac{e^{-\frac{1}{5}}}{5} = \frac{1}{5}$$

$$p_{2} = \frac{e^{-\frac{1}{2}} / k_{8} T}{Z} = \frac{e^{-\frac{1}{5}}}{5} = \frac{1}{5}$$

$$p_{3} = \frac{e^{-\frac{1}{2}} / k_{8} T}{Z} = \frac{e^{-\frac{1}{5}}}{5} = \frac{1}{5}$$

$$p_{4} = \frac{e^{-\frac{1}{2}} / k_{8} T}{Z} = \frac{e^{-\frac{1}{5}}}{5} = \frac{1}{5}$$

$$p_{5} = \frac{e^{-\frac{1}{2}} / k_{8} T}{Z} = \frac{e^{-\frac{1}{5}}}{5} = \frac{1}{5}$$

- 1) Probability of finding system in all possible conformations is identical.
- available from surrounding and system can jump from one conformation to another utilizing the available thermal energy.