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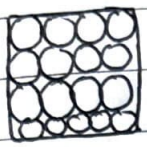
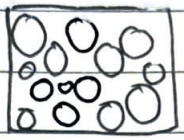
Entropy and Gibb's free energy

=> What is Entropy?

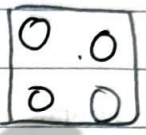
→ it is the measure of the disorder of the system



Solids - very well ordered



Liquid - less ordered



gas - very less ordered

∴ Entropy of Gas > Liquid > Solid

→ Entropy changes tell us about the feasibility of chemical and physical changes.

=> Formulas

1. $\Delta G = \Delta H - T\Delta S$

2. $\Delta G = -nFE^{\circ}_{cell}$ (F: Faraday's constant = 96500; n: no. of electrons)

3. $\Delta S = \frac{\Delta H}{T}$ when $\Delta G = 0$

4. $\Delta G = \Delta G_{pr} - \Delta G_{r}$

5. $\Delta S = \Delta S_{pr} - \Delta S_{r}$

6. $\Delta H = \Delta H_{pr} - \Delta H_{r}$