

22.5 The Definition of Gibbs Free Energy (Video)

This project was preformed to supply **Libretext Authors** with videos on General Chemistry topics which can be used to enhance their projects. Also, these videos are meant to act as a learning resource for **all General Chemistry students**.

Video Topics

The spontaneity of a reaction is related to H_{rxn} and S_{rxn}

Second law of thermodynamics: All spontaneous processes produce an increase in the entropy of the universe $S_{\text{univ}} = S_{\text{sys}} + S_{\text{sur}} > 0$

From this we can derive the equation for Gibbs free energy change (kJ/mol): $G = H - TS$

Remember we want $S_{\text{univ}} > 0$ so:

$G < 0$ If G is negative, the reaction is spontaneous.

$G > 0$ If G is positive, the reaction is non-spontaneous.

$G = 0$ If $G = 0$, the reaction is at equilibrium

Link to Video

The Definition of Gibbs Free Energy: <https://youtu.be/iuWkcHUh-1o>



Attribution

- Prof. Steven Farmer (Sonoma State University)

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