

CHAPTER OVERVIEW

13: Spontaneous Processes and Thermodynamic Equilibrium

An General Chemistry Libretexts Textmap organized around the textbook

Principles of Modern Chemistry

by Oxtoby, Gillis, and Campion

I II III IV V VI VII VIII IX X XI XII XIII XIV XV XVI
XVII XVIII XIX XX XXI XXII XXIII • **Homework Exercises**

[Template:HideTOC](#)

A spontaneous process is the time-evolution of a system in which it releases free energy and moves to a lower, more thermodynamically stable energy state.

[13.1: The Nature of Spontaneous Processes](#)

[13.2: Entropy and Spontaneity - A Molecular Statistical Interpretation](#)

[13.3: Entropy and Heat - Experimental Basis of the Second Law of Thermodynamics](#)

[13.4: Entropy Changes in Reversible Processes](#)

[13.5: Entropy Changes and Spontaneity](#)

[13.6: The Third Law of Thermodynamics](#)

[13.7: The Gibbs Free Energy](#)

[13.8: Carnot Cycle, Efficiency, and Entropy](#)

[13.E: Spontaneous Processes \(Exercises\)](#)

[13: Spontaneous Processes and Thermodynamic Equilibrium](#) is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by LibreTexts.