

Introduction for Module 1 – Equilibrium

Textbook: [Open Stax Chemistry 2e](#)

Suggested Reading: Chapter 13

Learning Objectives:

- **Describe the nature of equilibrium systems**
- **Explain the dynamic nature of a chemical equilibrium**
- **Calculate values of reaction quotients and equilibrium constants, using concentrations and pressures**
- **Relate the magnitude of an equilibrium constant to properties of the chemical system**
- **Predict the response of a stressed equilibrium using Le Châtelier's principle**

Captions and Attributions:

- 1) A sealed tube containing colorless N_2O_4 darkens as it decomposes to yield brown NO_2 and demonstrates equilibrium is formed with both reactants and products present. [Figure 13.2, A sealed tube containing colorless \$\text{N}_2\text{O}_4\$ darkens](#) by [Open Stax](#) is [licensed under CCBY 4.0](#).



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