

## CHAPTER OVERVIEW

### 18: Chemical Kinetics

An General Chemistry Libretexts Textmap organized around the textbook

#### **Principles of Modern Chemistry**

by Oxtoby, Gillis, and Campion

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XVII XVIII XIX XX XXI XXII XXIII • **Homework Exercises**

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This chapter will present a quantitative description of when the chemical composition of a system is *not* constant with time. Chemical kinetics is the study of reaction rates, the changes in the concentrations of reactants and products with time. With a discussion of chemical kinetics, the reaction rates or the changes in the concentrations of reactants and products with time are studied. The techniques you are about to learn will enable you to describe the speed of many such changes and predict how the composition of each system will change in response to changing conditions. As you learn about the factors that affect reaction rates, the methods chemists use for reporting and calculating those rates, and the clues that reaction rates provide about events at the molecular level.

[18.1: Rates of Chemical Reactions](#)

[18.2: Rate Laws](#)

[18.3: Reaction Mechanisms](#)

[18.4: Reaction Mechanisms and Rate](#)

[18.5: Effect of Temperature on Reaction Rates](#)

[18.6: A Deeper Look: Reaction Dynamics](#)

[18.7: Kinetics of Catalysis](#)

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