

Equilibrium: A State of Dynamic Balance

▶ pages 559–568
▶ 1 1/2 class session(s)

Section Objectives

- **Recognize** the characteristics of chemical equilibrium.
- **Write** equilibrium expressions for systems that are at equilibrium.
- **Calculate** equilibrium constants from concentration data.

National Science Content Standards

UCP.3, UCP.4; A.1; B.3, B.4; E.2; G.3

Georgia QCC

1, 1.2, 2.1, 3.1, 4, 10, 12.1, 12.3

Focus

_____ Section Focus Transparency 68 and Master

Teach

- _____ Discovery Lab, *SE* p. 559
- _____ Quick Demo, *TWE* p. 566
- _____ Identifying Misconceptions, *TWE* p. 564
- _____ Chemistry Journal, *TWE* pp. 560, 563
- _____ *Small-Scale Laboratory Manual*, pp. 57–60 *TCR*
- _____ Teaching Transparency 53 and Master
- _____ *Spanish Resources*, 18.1 *TCR*

Assess

- _____ Section Assessment, *SE* p. 568
- _____ Check for Understanding, *TWE* p. 567
- _____ Reteach, *TWE* p. 567
- _____ *Study Guide for Content Mastery*, pp. 103–104 *TCR*
- _____ Math Skills Transparency 28 and Master

Enrichment/Application

- _____ Extension, *TWE* p. 568
- _____ *Challenge Problems*, p. 18 *TCR*
- _____ *Cooperative Learning in the Science Classroom*, *TCR*

Chapter Assessment

- _____ Assessment, *TWE* pp. 563, 568
- _____ *Alternate Assessment in the Science Classroom*, *TCR*
- _____ *Performance Assessment in the Science Classroom*, *TCR*

Multimedia Options

- _____ **Chemistry Interactive CD-ROM**, Section 18.1 Animation and Video
- _____ **Vocabulary PuzzleMaker Software**, Ch. 18
- _____ **Cosmic Chemistry Videodisc**, Disc 1, Side 2; Disc 2, Side 3; Disc 3, Side 6; Disc 4, Side 8
- _____ *Using the Internet in the Science Classroom*, *TCR*
- _____ Chemistry Web site: ga.science.glencoe.com

Factors Affecting Chemical Equilibrium

▶ pages 569–574
▶ 1 1/2 class session(s)

Section Objectives

- **Describe** how various factors affect chemical equilibrium.
- **Explain** how Le Châtelier's principle applies to equilibrium systems.

National Science Content Standards

UCP.3, UCP.4; A.1; B.3, B.4, B.6; E.2; G.3

Georgia QCC

1, 1.2, 3.1, 9.6, 10, 10.1

Focus

_____ Section Focus Transparency 69 and Master

Teach

- _____ MiniLab, SE p. 573
- _____ Quick Demo, TWE p. 570
- _____ Chemistry Journal, TWE p. 572
- _____ ChemLab and MiniLab Worksheets, pp. 69–72 TCR
- _____ Laboratory Manual, pp. 137–140 TCR
- _____ Small-Scale Laboratory Manual, pp. 61–64 TCR
- _____ Teaching Transparency 54 and Master
- _____ Spanish Resources, 18.2 TCR

Assess

- _____ Section Assessment, SE p. 574
- _____ Check for Understanding, TWE p. 574
- _____ Reteach, TWE p. 574
- _____ Study Guide for Content Mastery, pp. 105–106 TCR

Enrichment/Application

- _____ Extension, TWE p. 574
- _____ Cooperative Learning in the Science Classroom, TCR

Chapter Assessment

- _____ Assessment, TWE pp. 571, 573, 574
- _____ Alternate Assessment in the Science Classroom, TCR
- _____ Performance Assessment in the Science Classroom, TCR

Multimedia Options

- _____ Chemistry Interactive CD-ROM, Section 18.2 Demonstration
- _____ Vocabulary PuzzleMaker Software, Ch. 18
- _____ Using the Internet in the Science Classroom, TCR
- _____ Chemistry Web site: ga.science.glencoe.com

Using Equilibrium Constants

▶ pages 575–585
▶ 3 class session(s)

Section Objectives

- **Determine** equilibrium concentrations of reactants and products.
- **Calculate** the solubility of a compound from its solubility product constant.
- **Explain** the common ion effect.

National Science Content Standards

UCP.3, UCP.4; A.1, A.2; B.2, B.3, B.4, B.6; E.1, E.2; F.1, F.6

Georgia QCC

1, 1.2, 2, 2.1, 3.1, 4, 8.1, 9.1, 9.2, 9.3, 9.4, 9.6, 10, 10.1, 10.2, 10.3, 15.4, 16.2

Focus

_____ Section Focus Transparency 70 and Master

Teach

- _____ Problem-Solving Lab, SE p. 583
- _____ ChemLab 18, SE pp. 586–587
- _____ Chemistry and Technology, SE p. 588
- _____ Quick Demo, TWE p. 584
- _____ Chemistry Journal, TWE pp. 577, 582, 583
- _____ ChemLab and MiniLab Worksheets, pp. 70–72 TCR
- _____ Laboratory Manual, pp. 141–144 TCR
- _____ Spanish Resources, 18.3 TCR

Assess

- _____ Section Assessment, SE p. 585
- _____ Check for Understanding, TWE p. 584
- _____ Reteach, TWE p. 585
- _____ Study Guide for Content Mastery, pp. 107–108 TCR
- _____ Math Skills Transparency 29 and Master
- _____ *Reviewing Chemistry: Preparing for the Georgia High School Graduation Test, TCR*

Enrichment/Application

- _____ Extension, TWE p. 585
- _____ *Supplemental Problems*, p. 27 TCR
- _____ *Cooperative Learning in the Science Classroom, TCR*

Chapter Assessment

- _____ Chapter 18 Assessment, SE pp. 590–593
- _____ Assessment, TWE pp. 581, 583, 584, 585, 587
- _____ *Chapter Assessment*, pp. 103–108 TCR
- _____ *Alternate Assessment in the Science Classroom, TCR*
- _____ *Performance Assessment in the Science Classroom, TCR*

Multimedia Options

- _____ **Vocabulary PuzzleMaker Software**, Ch. 18
- _____ **MindJogger Videoquizzes**, Ch. 18
- _____ **TestCheck Software**, Ch. 18
- _____ **Cosmic Chemistry Videodisc**, Disc 1, Side 2
- _____ **Chemistry Interactive CD-ROM**, Chapter 18 quiz
- _____ *Using the Internet in the Science Classroom, TCR*
- _____ Chemistry Web site: ga.science.glencoe.com