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For the Instructor



McGraw-Hill ConnectPlus® is a Web-based, interactive assignment and assessment platform that incorporates cognitive science principles to customize the learning process. The chemical drawing tool found within Connect Chemistry is CambridgeSoft's ChemDraw, which is widely considered the "gold standard" of scientific drawing programs and the cornerstone application for scientists who draw and annotate molecules, reactions, and pathways. This combination of Connect and ChemDraw features an easy-to-use, intuitive, and comprehensive course management and homework system with professional-grade drawing capabilities.

End-of-chapter problems from this textbook are available in Connect Chemistry for instructors to build assignments that are automatically graded and tracked through reports that export easily to Excel. Instructors can edit existing problems and write entirely new problems; track individual student performance—by problem, assignment, concepts, or in relation to the class overall—with automatic grading; provide instant feedback to students; and store detailed grade reports securely online. Grade reports can be easily integrated with learning management systems such as WebCT and Blackboard. Single sign-on integration is available with Blackboard course management systems. Within Connect, instructors can also create and share materials with colleagues. Ask your McGraw-Hill representative for more information, and then check it out at www.mcgrawhillconnect.com/chemistry.

With ConnectPlus, if you or your students are ready for an alternative version of the traditional textbook, McGraw-Hill has your solution. EBooks from McGraw-Hill are smart, interactive, searchable, and portable. Included is a powerful suite of built-in tools that enable detailed searching, highlighting, note taking, or instructor-to-student note sharing. In addition, the media-rich eBook for *Chemistry* integrates relevant animations and videos into the textbook content for a true multimedia learning experience.

McGraw-Hill LearnSmart™

McGraw-Hill LearnSmart™, an adaptive diagnostic learning system, powered by Connect Chemistry and based on artificial intelligence, constantly assesses your knowledge of the course material. As you work within the system, LearnSmart develops a personal learning path adapted to what you have actively learned and retained. This innovative study tool also has features to enable your instructor to see exactly what you have accomplished, with a built-in assessment tool for graded assignments. You can access LearnSmart for general chemistry by going to www.mcgrawhillconnect.com/chemistry.



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- **Art** Full-color digital files of all illustrations in the book.
- **Photos** The photos collection contains digital files of photographs from the text.
- **Tables** Every table that appears in the text is available electronically.
- **Animations** Numerous full-color animations illustrating important processes are also provided.
- **PowerPoint Lecture Outlines** Ready-made presentations for each chapter of the text.

- **PowerPoint Slides** All illustrations, photos, and tables are pre-inserted by chapter into blank PowerPoint slides.

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Computerized Test Bank Online

A comprehensive bank of test questions is provided within a computerized test bank, enabling professors to prepare and access tests or quizzes anywhere, at any time. Instructors can create or edit questions, or drag-and-drop questions to prepare tests quickly and easily. Tests can be published to their online course, or printed for paper-based assignments.

Instructor's Solution Manual

The **Instructor's Solution Manual** is written by Brandon J. Cruickshank (*Northern Arizona University*), Raymond Chang, and Ken Goldsby. The solutions to all of the end-of-chapter problems are given in the manual. The manual also provides the difficulty level and category type for each problem. This manual is online in the text's Connect Library tab.

Instructor's Manual

The **Instructor's Manual** provides a brief summary of the contents of each chapter, along with the learning goals, reference to background concepts in earlier chapters, and teaching tips. This manual is online in the text's Connect Library tab.

For the Students

Students can order supplemental study materials by contacting their campus bookstore, calling 1-800-262-4729, or online at www.shopmcgraw-hill.com.

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Featuring **CambridgeSoft® ChemDraw**

With **McGraw-Hill Connect® Chemistry**, students can practice solving assigned homework problems using the same problem-solving methodology they've learned

from their textbook. Algorithmic problems serve up multiple versions of similar problems for mastery of content, and hints and feedback for common incorrect answers help students stay on track. Where appropriate, students will learn accurate, professional-grade chemical drawing through the use of CambridgeSoft's ChemDraw tool, which is implemented directly into their homework problems.

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McGraw-Hill LearnSmart™, an adaptive diagnostic learning system, powered by Connect Chemistry and based on artificial intelligence, constantly assesses your knowledge of the course material. As you work within the system, LearnSmart develops a personal learning path adapted to what you have actively learned and retained. This innovative study tool also has features to enable your instructor to see exactly what you have accomplished, with a built-in assessment tool for graded assignments. You can access LearnSmart for general chemistry by going to www.mcgrawhillconnect.com/chemistry.

Student Solutions Manual

The *Student Solutions Manual* is written by Brandon J. Cruickshank (*Northern Arizona University*), Raymond Chang, and Ken Goldsby. This supplement contains detailed solutions and explanations for even-numbered problems in the main text. The manual also includes a detailed discussion of different types of problems and approaches to solving chemical problems and tutorial solutions for many of the end-of-chapter problems in the text, along with strategies for solving them. Note that solutions to the problems listed under Interpreting, Modeling & Estimating are not provided in the manual.

Student Study Guide

This valuable ancillary contains material to help the student practice problem-solving skills. For each section of a chapter, the author provides study objectives and a summary of the corresponding text. Following the summary are sample problems with detailed solutions. Each chapter has true–false questions and a self-test, with all answers provided at the end of the chapter.

Animations for MP3/iPod

A number of animations are available for download to your MP3/iPod through the textbook's Connect website.