DESCRIPTION

With the 7th Edition of *Analytical Chemistry*, renowned chemists Purnendu (Sandy) Dasgupta and Kevin Schug, both of the University of Texas Arlington, join the author team. The new edition focuses on more in-depth coverage of the principles and techniques of quantitative analysis and instrumental analysis (aka Analytical Chemistry). The goal of the text is to provide a foundation of the analytical process, tools, and computational methods and resources, and to illustrate with problems that bring realism to the practice and importance of analytical chemistry. It is designed for undergraduate college students majoring in chemistry and in fields related to chemistry.

ABOUT THE AUTHOR


RELATED RESOURCES

Student

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NEW TO EDITION

• **Professor’s Favorite Examples** and **Professor’s Favorite Problems** have been added throughout the text. We asked professors and practicing analytical chemists to suggest new analytical examples and problems, especially as they relate to real world practice.

• **New chapter (chapter 22) on mass spectrometry**, since this is increasingly a routine and powerful analytic tool. Significant updates to the liquid chromatography chapter (chapter 21) that not only give the fundamentals of various techniques, how they evolved and their operation, but also what the capabilities of different systems are and guidance for selecting a suitable system for a specific application.

• **Revised chapters**, especially those dealing with instrumentation to include recent technological innovations.

• **Historical information** is added throughout to put into perspective how the tools have been developed and evolved.

• **Video tutorials** created by students of Professor Dasgupta to illustrate the use of powerful Excel programs to perform complicated calculations, and to create plots of titration curves, alpha vs. pH, logC vs. pH, etc.

• **New experiments** have been added. All experiments are available for download from the book companion site.

• **QR codes** are provided for selected text website materials, allowing students to browse for the videos, URL links, etc. on their smartphones or iPads.

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FEATURES

• Each chapter is introduced with a summary paragraph that lists the topics to be covered, providing a broad overview of each important topic, including key learning objectives to help students focus on the key topics.

• Detailed instructions are given on how to use and take advantage of spreadsheets in analytical calculations, plotting, and data processing. The use of Excel Goal Seek and Excel Solver is introduced for solving complex problems.
• There are 46 experiments, grouped by topic, illustrating most of the measurement techniques presented in the text. Each contains a description of the principles and chemical reactions involved so the student gains an overview of what is being determined and how.

• Problems and Recommended References are grouped by topic, for ease in assignment. Numerous references are classics with historical but valuable information, but references have been extensively updated.

• PowerPoint slides of all figures and tables in the text are posted on the book website for each chapter, with summaries of text material for each.

For additional product details, please visit https://www.wiley.com/en-us