DESCRIPTION

Modern mass spectrometry - the instrumentation and applications in diverse fields

Mass spectrometry has played a pivotal role in a variety of scientific disciplines. Today it is an integral part of proteomics and drug discovery process. *Fundamentals of Contemporary Mass Spectrometry* gives readers a concise and authoritative overview of modern mass spectrometry instrumentation, techniques, and applications, including the latest developments. After an introduction to the history of mass spectrometry and the basic underlying concepts, it covers:

- Instrumentation, including modes of ionization, condensed phase ionization techniques, mass analysis and ion detection, tandem mass spectrometry, and hyphenated separation techniques

- Organic and inorganic mass spectrometry

- Biological mass spectrometry, including the analysis of proteins and peptides, oligosaccharides, lipids, oligonucleotides, and other biological materials

- Applications to quantitative analysis

Based on proven teaching principles, each chapter is complete with a concise overview, highlighted key points, practice exercises, and references to additional resources. Hints and solutions to the exercises are provided in an appendix. To facilitate learning and improve problem-solving skills, several worked-out examples are included.
This is a great textbook for graduate students in chemistry, and a robust, practical resource for researchers and scientists, professors, laboratory managers, technicians, and others. It gives scientists in diverse disciplines a practical foundation in modern mass spectrometry.

ABOUT THE AUTHOR

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FEATURES

• Includes numerous exercises in every chapter, with the answers at the back of the book.

• Provides a glossary for easy look-up of terms.

• Lists helpful Internet resources in the appendix.

• Ends each chapter with a quick summary of what the reader should have learned.

• Begins with a chapter on the history of Mass Spectrometry and explains its use.

• Starts each chapter out with an explanation of basic concepts and then moves on to more complex material.