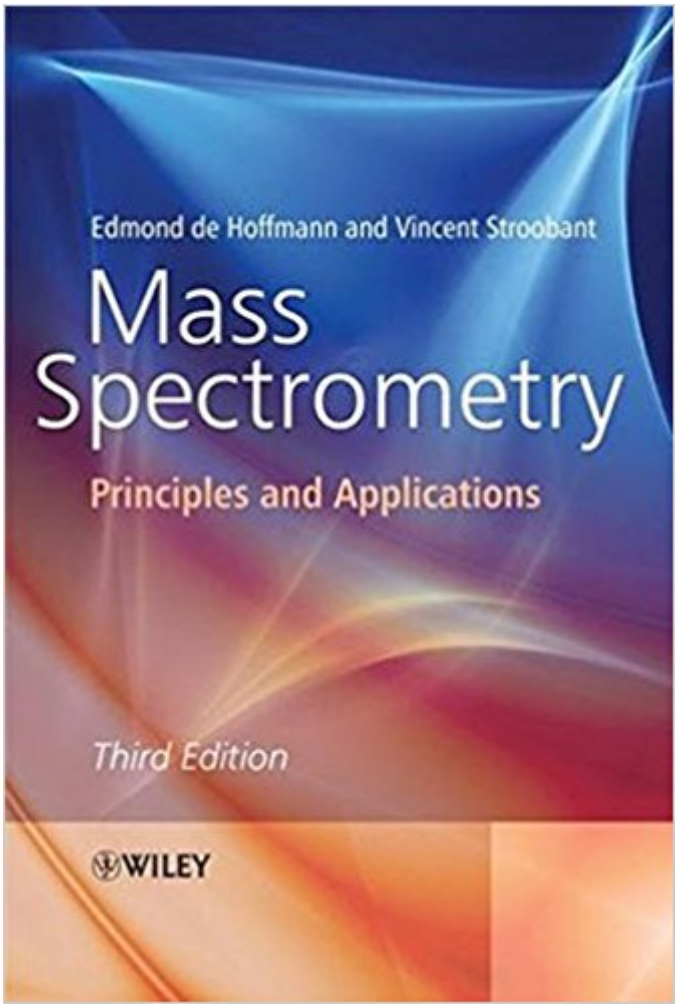
# Mass Spectrometry: Principles And Applications



## Synopsis

The latest edition of a highly successful textbook, Mass Spectrometry, Third Edition provides students with a complete overview of the principles, theories and key applications of modern mass spectrometry. All instrumental aspects of mass spectrometry are clearly and concisely described: sources, analysers and detectors. Tandem mass spectrometry is introduced early on and then developed in more detail in a later chapter. Emphasis is placed throughout the text on optimal utilisation conditions. Various fragmentation patterns are described together with analytical information that derives from the mass spectra. This new edition has been thoroughly revised and updated and has been redesigned to give the book a more contemporary look. As with previous editions it contains numerous examples, references and a series of exercises of increasing difficulty to encourage student understanding. Updates include: Increased coverage of MALDI and ESI, more detailed description of time of flight spectrometers, new material on isotope ratio mass spectrometry, and an expanded range of applications. Mass Spectrometry, Third Edition is an invaluable resource for all undergraduate and postgraduate students using this technique in departments of chemistry, biochemistry, medicine, pharmacology, agriculture, material science and food science. It is also of interest for researchers looking for an overview of the latest techniques and developments.

## Book Information

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Best Sellers Rank: #301,854 in Books (See Top 100 in Books) #83 inÂ Books > Science & Math > Chemistry > Analytic #1175 inÂ Books > Textbooks > Science & Mathematics > Chemistry #3681 inÂ Books > Science & Math > Physics

## Customer Reviews

"This is a great book for everyone in the field to keep handy." (CHOICE, April 2008) Â "Overview of the principles, theories, and key applications of modern mass spectrometry." (Materials and

Corrosion, November 2007)

Text: English (translation) Original Language: French --This text refers to the Hardcover edition.

The theory, instrumentation and various applications of mass spectrometry are covered. The different types of ion sources and mass analyzers are discussed upfront at length and detectors are also touched upon. The chapters that follow deal with tandem MS, chromatographic coupling (rather brief), fragmentation reactions and the analysis of bio-molecules. This last topic is covered nicely and provides important details. The last chapter contains a series of exercises with the corresponding answers.Numerous examples of real-life applications are presented, albeit briefly, and the text is generously supplemented with diagrams and tables. It is up to date on most topics and many useful references are supplied.Overall the book presents a fairly complete overview of mass spectrometry and its applications, and the extent of the details given is appropriate for its scope, though I would have liked to see a more in-depth treatment of the ever more important topic of LC-MS and LC-MS-MS.What I liked less about this book is that it often reads like a literal translation from another language. It could greatly benefit from a detailed review of the English language used.I would rate it at 3.5 stars and would recommend it as a reference book or as a secondary reading for a graduate MS class.

Very descriptive, very thorough survey of mass spectrometry science and instrument types. Scientific principles of ion sources, mass analyzers, and output spectra are well illustrated and supplied with chemical equations. The book also has sections on biological macromolecule analysis, and a brief chapter on analyzing spectra output. It also has a section on multiple reaction monitoring for tandem mass spec.This is an excellent go-to-book for getting background information before approaching a problem. I used this book frequently while writing a lengthy thesis/report for my Master’s degree, during a HPLC-MS technician internship, and I still to use it today.The writing is concise and descriptive, though at least an undergraduate background in physics and chemistry is necessary to get the full value of the book.I highly recommend this book for undergraduate and graduate students, and for professional review.

This is a good quick-reference book for mass spectrometry if you want some information available on your shelf without always having to look up in the literature. I do wish, though, that the book contained more information about interpretation of fragmentation peaks.

This book is great for anyone in the Mass Spec field. The text quickly, yet thoroughly identifies the most important pieces of information required for understanding and provides the means by which to continue investigation. Highly Recommended.

Purchased for Higher learning. As described

Although the buying information indicated that this book was used, I believe that it was brand new! It is in absolutely wonderful condition. The book itself is great, too, but, being translated from French, there are definitely some interesting phrases to say the least

This book sets great principles for the applications of mass spectrometry. My professor uses it for the bases of his lectures and then adds on what ever he thinks is necessary for a discussion. Good basic principles of mass spectrometry. Nothing in too much of detail but good enough for a basic understanding.

Great reference. Not as comprehensive as expected but still a good tool and reference for the lab chemist.

Increase Your Strength and Build Muscle Mass Rapidly Nutritional Foundations and Clinical Applications: A Nursing Approach, 5e (Foundations and Clinical Applications of Nutrition) Transportation Systems Analysis: Models and Applications (Springer Optimization and Its Applications)