The Expanding Role of Mass Spectrometry in Biotechnology

Gary Siuzdak
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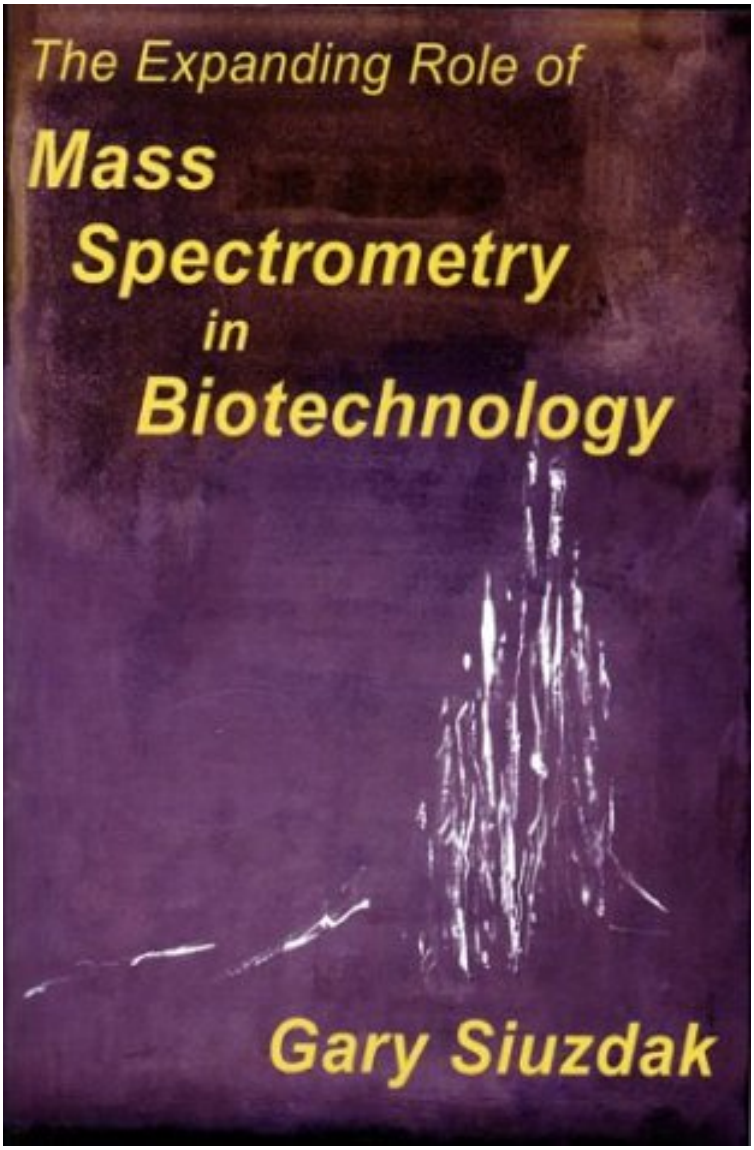

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Gary Siuzdak : The Expanding Role of Mass Spectrometry in Biotechnology before purchasing it in order to gage whether or not it would be worth my time, and all praised The Expanding Role of Mass Spectrometry in Biotechnology:

0 of 0 people found the following review helpful. Good book for bioMS rookieBy kerryThe book is compact and can lead me, a rookie in bioMS to go over the area quickly, I like it.4 of 4 people found the following review helpful. An essential, well-written text for Mass Spec and BiotechBy Joanna D.Mass spectroscopy is one of the most useful

techniques in biotechnology, especially proteomics. The identification of drug metabolites, synthesis products and protein and protein fragments is a central activity in many types of research projects. Small molecules and larger macromolecules can be analyzed, both for molecular weight and their structure. The popularity of mass spectrometric analysis in biotechnology has soared over the last decade.There have been new developments in mass spec, including hybrid instruments that combine MALDI (Matrix-assisted laser desorption) with ESI electrospray, new ion trap instruments, and many developments such as high-throughput analysis and mass spec for clinical diagnostics. This book serves as both an update to Dr. Siuzdak's first book "Mass Spectrometry for Biotechnology" and really, serves as a replacement since the original text was published in 1996.The chapters include:1. Ionization and the Mass Spectrometer2. Mass Analyzers3. Practical Aspects of Biomolecular Analysis4. Peptide and Protein Analysis5. Protein Profiling6. Protein Structure characterization7. Nucleic acid, carbohydrates and steroids8. High throughput analysis9. Pharmacokinetics10. Mass Spectrometry in Action (applications)For instructors in analytical chemistry courses at the college or graduate level, the book is a useful text with questions at the end of the chapters to be used as review. These are not in-depth questions, but they are a good tool for the self-directed student to check his or her comprehension. The later chapters are heavy on applications such as carbohydrate and oligonucleotide and steroid analysis, as well as pharmacokinetics. There are many illustrations, well-drawn and clear. This compact, well-written and useful primer should be on the shelf of anyone doing mass spec in biotechnology, anyone studying analytical chemistry or really, anyone in biotechnology.2 of 2 people found the following review helpful. Will it be translated into Chinese ?By Yang MinAfter reading "The Expanding Role of Mass Spectrometry in Biotechnology", I believe it should be recommended to more students including undergraduates and graduate students majoring in analytical chemistry, organic chemistry, biology, or related areas. And it would be a helpful reference for students who have some basic knowledge about MS and would like to learn more about its current development and applications. For myself as a graduate student in analytical chemistry it concisely explained and summarized the different areas of MS and provided a comprehensive view on its development in bioanalytical science. Moreover, it is a good text book as it is easy to understand and the questions at the end of each chapter are good guides for students to master key pionts. Last month, I used this book to educate my roomate, a PhD candidate in organic chemistry, on the ionization principles of ESI. The great images and examples helped her a lot . So, the question is... will Gary Siuzdak translate it into Chinese to make it more easily available to other Chinese students!

The Expanding Role of Mass Spectrometry in Biotechnology covers the basic concepts in mass spectrometry as well as advanced topics including protein identification/protein structural analysis, carbohydrate and oligonucleotide analysis. Topics also include pharmacokinetics, high throughput screening, and the recent development of mass spectrometry in clinical diagnosis.

About the AuthorGary Siuzdak obtained his Ph.D. at Dartmouth College and is currently at The Scripps Research Institute where he is Director of the Center for Mass Spectrometry and Associate Professor of Molecular Biology.