

1. Record Nr.	UNINA9910143581503321
Titolo	Principles of mass spectrometry applied to biomolecules [[electronic resource] /] / edited by Julia Laskin, Chava Lifshitz
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2006
ISBN	1-280-72226-6 9786610722266 0-470-05042-X 0-470-05041-1
Descrizione fisica	1 online resource (707 p.)
Collana	Wiley-Interscience series in mass spectrometry
Altri autori (Persone)	LaskinJulia <1967-> LifshitzChava
Disciplina	543.65 543/.65
Soggetti	Mass spectrometry Biomolecules - Analysis Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	PRINCIPLES OF MASS SPECTROMETRY APPLIED TO BIOMOLECULES; CONTENTS; CONTRIBUTORS; PREFACE; PART I STRUCTURES AND DYNAMICS OF GAS-PHASE BIOMOLECULES; 1 Spectroscopy of Neutral Peptides in the Gas Phase: Structure, Reactivity, Microsolvation, Molecular Recognition; 2 Probing the Electronic Structure of Fe-S Clusters: Ubiquitous Electron Transfer Centers in Metalloproteins Using Anion Photoelectron Spectroscopy in the Gas Phase; 3 Ion-Molecule Reactions and H/D Exchange for Structural Characterization of Biomolecules 4 Understanding Protein Interactions and Their Representation in the Gas Phase of the Mass Spectrometer5 Protein Structure and Folding in the Gas Phase: Ubiquitin and Cytochrome c; 6 Dynamical Simulations of Photoionization of Small Biological Molecules; 7 Intramolecular Vibrational Energy Redistribution and Ergodicity of Biomolecular Dissociation; PART II ACTIVATION, DISSOCIATION, AND REACTIVITY; 8 Peptide Fragmentation Overview; 9 Peptide Radical Cations; 10

Photodissociation of Biomolecule Ions: Progress, Possibilities, and Perspectives Coming from Small-Ion Models
11 Chemical Dynamics Simulations of Energy Transfer and Unimolecular Decomposition in Collision-Induced Dissociation (CID) and Surface-Induced Dissociation (SID)12 Ion Soft Landing: Instrumentation, Phenomena, and Applications; 13 Electron Capture Dissociation and Other Ion-Electron Fragmentation Reactions; 14 Biomolecule Ion-Ion Reactions; PART III THERMOCHEMISTRY AND ENERGETICS; 15 Thermochemistry Studies of Biomolecules; 16 Energy and Entropy Effects in Gas-Phase Dissociation of Peptides and Proteins; INDEX

Sommario/riassunto

An extensive compilation of articles by leading professionals, this reference explains the fundamental principles of mass spectrometry as they relate to the life sciences. Topics covered include spectroscopy, energetics and mechanisms of peptide fragmentation, electron capture dissociation, ion-ion and ion-molecule reactions, reaction dynamics, collisional activation, soft-landing, protein structure and interactions, thermochemistry, and more. The book empowers readers to develop new ways of using these techniques.
