

1. Record Nr.	UNINA9910969393103321
Titolo	Handbook on mass spectrometry : instrumentation, data and analysis, and applications / / J.K. Lang, editor
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2009
ISBN	1-61209-692-1
Edizione	[1st ed.]
Descrizione fisica	1 online resource (545 p.)
Collana	Advances in chemistry research series
Altri autori (Persone)	LangJ. K
Disciplina	543/.65
Soggetti	Mass spectrometry Analytical chemistry
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	""HANDBOOK ON MASS SPECTROMETRY:INSTRUMENTATION, DATA AND ANALYSIS, AND APPLICATIONS""; ""CONTENTS""; ""PREFACE""; ""MASS SPECTROMETRIC CHARACTERIZATION OF ORGANOMETALLIC COMPOUNDS""; ""ABSTRACT""; ""1. INTRODUCTION""; ""2. IONIZATION TECHNIQUES""; ""3. MASS ANALYZERS""; ""4. BASIC IONIZATION MECHANISMS OF ORGANOMETALLICS""; ""5. MASS SPECTROMETRY OF INDIVIDUAL ORGANOMETALLIC CLASSES""; ""5.1. Main Group Organometallic Compounds""; ""Simple main group organometallic compounds""; ""Organotin compounds""; ""Organolead compounds""; ""Organogermanium compounds"" ""Organoarsenic, organoantimony and organobismuth compounds"" Organoboron compounds""; ""Organoaluminum, organogallium and organoindium compounds""; ""Organoselenium and organotellurium compounds""; ""Organosilicon compounds""; ""5.2. Transition Metal Organometallic Compounds""; ""Metallocenes and related compounds""; ""Transition metal organometallic compounds containing covalent carbon-metal bond""; ""Heteropolymetallic complexes""; ""5.3. Organometallics Compounds Containing Lanthanoids""; ""6. CONCLUSION""; ""ACKNOWLEDGMENTS""; ""7. REFERENCES""; ""LC-MS BASED METABOLOMICS"" ""ABSTRACT"" ""1. METABOLOMICS?""; ""1.1. The Positioning of Metabolomics in Research""; ""1.2. Challenges in Metabolomics Approaches""; ""1.3. Mass Spectrometry in Metabolomics Research"";

""2. STAGES IN AN LC-MS BASED METABOLOMICS ANALYSIS""; ""2.1. Sample Collection and Sample Storage""; ""2.2. Sample Homogenisation/Extraction/Deproteinisation""; ""2.3. Liquid Chromatography (LC)""; ""2.4. The Ionisation Process as an Interface between LC and MS: Focus on Matrix Effect""; ""2.5. Mass Spectrometry""; ""2.6. Data Handling""; ""2.6.1. Data processing""; ""2.6.1.1. Filtering""; ""2.6.1.2. Feature/peak detection""""2.6.1.3. Alignment""; ""2.6.1.4. Normalisation""; ""2.6.2. Data analysis""; ""2.6.2.1. Principal component analysis (PCA) ""; ""2.6.2.2 Partial least-squares projections to latens structures (PLS)""; ""2.6.2.3. O-PLS""; ""2.7. Metabolite Identification""; ""3. CONCLUSION""; ""REFERENCES""; ""BIOMARKER DISCOVERY FOR CANCER DIAGNOSIS USING SERUM PROTEOMIC ANALYSIS:FROM BASIC RESEARCH TO CLINICAL APPLICATION""; ""ABSTRACT""; ""INTRODUCTION""; ""1. PROTEOMIC ANALYSIS OF SERUM/PLASMA IS EFFECTIVE TO SEARCH FOR CANCER DIAGNOSTIC MARKERS""; ""1.1. Characteristics of Global Analyses and Diagnostic Availability of Biomarkers""""1.2. Advantages of Proteomic Analysis in the Search for Diagnostic Biomarkers""; ""1.3. Specimen""; ""2. SEPARATION TECHNOLOGIES IN PROTEOMIC ANALYSIS""; ""2.1. 2D-DIGE""; ""2.2. Protein Chip ArrayA®""; ""2.3. ClinProtA®""; ""2.4. Shotgun Proteomics Using LC""; ""3. MASS SPECTROMETRY""; ""3.1. Fundamentals of MS""; ""3.2. Ionization Methods""; ""3.3. Mass Analyzers""; ""3.4. Types of MS Used in Proteomic Analysis""; ""4. IDENTIFICATION OF PROTEINS/PEPTIDES USING MS""; ""4.1. Protein Identification by Peptide Mass Fingerprinting""

Sommario/riassunto

Mass spectrometry (MS) is an analytical technique for the determination of the elemental composition of a sample or molecule. This book gathers the latest research from around the globe in the field.
