

1. Record Nr.	UNINA9910827986003321
Autore	McDermott Henry J
Titolo	Air monitoring for toxic exposures // Henry J. McDermott
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2004
ISBN	1-280-34604-3 9786610346042 0-471-67057-X 0-471-67058-8
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (702 p.)
Altri autori (Persone)	NessShirley A
Disciplina	628.5/3/0287
Soggetti	Air - Pollution - Measurement Biological monitoring Air sampling apparatus
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Rev. ed. of: Air monitoring for toxic exposures / Shirley A. Ness. c1991.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	AIR MONITORING FOR TOXIC EXPOSURES; CONTENTS; PREFACE; PART I BACKGROUND CONCEPTS FOR AIR MONITORING; 1 Air Monitoring Review; Air Sampling in Perspective; Air Sampling Strategy and Plan; Types of Air Monitoring; Air Sampling Techniques; Sample Collection Devices; Direct-Reading Devices; Monitoring Records; Summary; References; 2 Hazards; Contaminants; Toxic Effects; Warning Signs; Standards and Guidelines for Air Sampling; Exposure Controls; Summary; References; 3 Exposure Assessment Strategy and Monitoring Plan; Exposure Assessment; Performing an Exposure Assessment Exposure Monitoring PlanSummary; References; 4 Air Monitoring at Emergencies Including Terrorism Events; Reasons for Air Sampling; Terrorism Agents; Identifying a Terrorism Event; Planning for Emergencies and Terrorism Events; Air Sampling for Chemical Agents; Air Sampling for Biological Agents; Air Sampling for Radiological Hazards; Summary; References; PART II SAMPLE COLLECTION DEVICE METHODS FOR CHEMICALS; 5 Introduction to Monitoring Using Sample Collection Devices; Review of the Metric System; Method Selection; Pumps and Other Sampling Equipment; Understanding the Critical Orifice

Calibration Devices Calibration Procedures; Sample Identification and Chain of Custody; Documenting Exposure Monitoring; Performing the Exposure Monitoring; Laboratory Analysis; Voiding Samples; Examples: Calculating Air Monitoring Results; Comparing Results to Exposure Limits; Summary; References; 6 Sample Collection Device Methods for Gases and Vapors; Active Sample Collection Device Monitoring; Passive Collectors for Gases and Vapors; Summary; References; 7 Sample Collection Device Methods for Aerosols; Characterizing Aerosols; Aerosol Collection Mechanisms; Potential Problems
Total Aerosol Samplers Particle Size-Selective Sampling; Size-Selective Sampling Devices; Sampling for Specific Aerosols; Summary; References; 8 Concurrent Sampling for Vapors and Aerosols; Collection Methods for Semivolatile Compounds; Collection of Multiple Species: Arsenic; Combustion Processes: Cigarette Smoke Collection; Collection of Mixtures; References; PART III REAL-TIME MEASUREMENT INSTRUMENTS; 9 Introduction to Monitoring Using Real-Time Methods; Direct-Reading Instruments; Colorimetric Systems; Summary; References; 10 Instruments with Sensors for Specific Chemicals; Calibration
Electrochemical Sensors Metal Oxide Sensors; Other Detection Principles; Specific Chemicals; Summary; References; 11 General Survey Instruments for Gases and Vapors; Measurement of Explosive Atmospheres: Combustible Gas Indicators; Interpretation of Measurements of Explosive Atmospheres; Monitoring for Health Hazard Levels of Volatile Organic Compounds: FIDs and PIDs; Comparison of FID and PID for General Survey Use; Interpretation of General Survey Measurements for Health Hazards; Summary; References; 12 Instruments for Multiple Specific Gases and Vapors: GC, GC/MS, and IR Portable Gas Chromatographs (GCs)

Sommario/riassunto

Get the Latest from the Field This book offers ready-to-use information for measuring a wide variety of airborne hazardous materials including chemicals, radon, and bioaerosols. It provides the latest procedures for air sampling, collecting biological and bulk samples, evaluating dermal exposures, and determining the advantages and limitations of a given air monitoring method.
