1. Record Nr. UNINA9911019103803321

Autore	Gonzalez Catherine
Titolo	Rapid chemical and biological techniques for water monitoring / / Catherine Gonzalez, Richard Greenwood, Philippe Quevauviller
Pubbl/distr/stampa	Chichester, West Sussex, U.K. ; ; Hoboken, NJ, : Wiley, 2009
ISBN	9786612123658 9781282123656 1282123653 9780470745427 0470745428 9780470745434 0470745436
Descrizione fisica	1 online resource (443 p.)
Collana	Water quality measurements series
Altri autori (Persone)	GreenwoodR (Richard) QuevauvillerPh
Disciplina	628.1 628.1/61 628.161
Soggetti	Water quality bioassay Environmental monitoring Water - Pollution Water - Microbiology Water chemistry 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	Rapid Chemical and Biological Techniques for Water Monitoring; Contents; Series Preface; Preface; The Series Editor - Philippe Quevauviller; List of Contributors; Section 1 Screening Methods in the Context of Water Policies; 1.1 WFD Monitoring and Metrological Implications; 1.2 Use of Screening Methods in US Water Regulation; 1.3 Existing and New Methods for Chemical and Ecological Status Monitoring under the WFD; Section 2 Chemical Methods; 2.1 The Potential of Passive Sampling to Support Regulatory Monitoring of the

Chemical Quality of Environmental Waters

2.2 Polar Organic Chemical Integrative Sampler and Semi-permeable Membrane Devices2.3 Main Existing Methods for Chemical Monitoring; 2.4 UV Spectrophotometry: Environmental Monitoring Solutions; Section 3 Biological Methods; 3.1 Application of Microbial Assay for Risk Assessment (MARA) to Evaluate Toxicity of Chemicals and Environmental Samples; 3.2 Bioassays and Biosensors; 3.3 Immunochemical Methods; 3.4 Biomolecular Recognition Systems for Water Monitoring; 3.5 Continuous Monitoring of Waters by Biological Early Warning Systems

3.6 Biological Markers of Exposure and Effect for Water Pollution MonitoringSection 4 Potential Use of Screening Methods and Performance Evaluation; 4.1 Monitoring Heavy Metals Using Passive Sampling Devices; 4.2 On-site Heavy Metal Monitoring Using a Portable Screen-printed Electrode Sensor; 4.3 Field Monitoring of PAHs in River Water by Direct Fluorimetry on C18 Solid Sorbent; 4.4 Evaluation of the Field Performance of Emerging Water Quality Monitoring Tools; 4.5 Sampling Uncertainty and Environmental Variability for Trace Elements on the Meuse River, France

Section 5 Quality Assurance and Validation Method5.1 Preparation of Reference Materials for Proficiency Testing Schemes; 5.2 Participation of Screening Methods and Emerging Tools (SMETs) to Proficiency Testing Schemes on the Determination of Priority Substances in Real Water Matrices Organized in Support of the Water Framework Directive Implementation; 5.3 Traceability and Interlaboratory Studies on Yeast-based Assays for the Determination of Estrogenicity; Section 6 Integration of Screening Methods in Water Monitoring Strategies

6.1 Assessing the Impacts of Alternative Monitoring Methods and Tools on Costs and Decision Making: Methodology and Experience from Case Studies6.2 Acceptance of Screening Methods by Actors Involved in Water Monitoring; Index

Sommario/riassunto

Rapid Chemical and Biological Techniques for Water Monitoring presents in one volume the broad spectrum of monitoring tools, both available and under development, and provides an assessment of their potential for underpinning environmental management and legislation. The book explores screening methods in the context of water policies; chemical methods; biological methods; potential use of screening methods; quality assurance and validation methods; integration of screening methods in water monitoring strategies. The text provides a timely source of information for post-graduates, resea