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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
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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
