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1.4.4.3 Interlaboratory certification studies
1.4.5 Producers of environmental CRMs; 1.5 Sampling and sample handling; 1.5.1 Sampling strategy; 1.5.2 Sampling techniques; 1.5.3 Registration; 1.5.4 Storage; 1.5.5 Subsampling; 1.6 Reporting and archiving; 1.7 Regulatory aspects of QA and QC in environmental monitoring; 1.7.1 Good Laboratory Practice (GLP); 1.7.2 Accreditation; 1.7.3 ISO 9000/EN 29000 standards; 1.7.4 Standardization; 1.8 Conclusions; 1.9 References; CHAPTER 2. SAMPLING STRATEGY IN ENVIRONMENTAL MONITORING OF BIOLOGICAL SPECIMENS; 2.1 Objectives of environmental sampling
2.1.1 Representativeness of environmental samples
2.1.2 Repeatability and precision; 2.1.3 Spatial comparability; 2.1.4 Reliability and probative force of environmental samples; 2.2 Principles of quality assurance in environmental sampling: requirements and methods; 2.3 Sampling strategies for plants (passive biomonitoring); 2.3.1 Fortuitous sampling; 2.3.2 Selected sampling; 2.3.3 Random sampling; 2.3.4 Systematic sampling (transects, grids); 2.3.5 Stratified random sampling; 2.4 Active or experimental monitoring with plants; 2.5 Sampling strategies for soils for biological specimens
2.6 Sampling strategies for animals in environmental monitoring
2.6.1 Indicator function of animals; 2.6.2 Availability of animals; 2.6.3 Stratified random sampling of less mobile animals; 2.6.4 Stratified random sampling of mobile animals; 2.6.5 Zebra mussels as examples of sampling under semi-artificial conditions; 2.7 References; CHAPTER 3. QUALITY ASSURANCE AND QUALITY CONTROL OF SURFACE WATER SAMPLING; 3.1 Quality systems for sampling; 3.2 Development of a sampling strategy; 3.2.1 Analysis of information needed; 3.2.2 Design of a sampling strategy; 3.2.2.1 Representativeness of samples
3.2.2.2 The sampling site

Sommario/riassunto

It is increasingly recognized that the greatest risks of error in environmental analysis lie in the sample preparation rather than the analysis stage. This book describes the precautions that must be taken from the sampling to the sample pretreatment via the storage stage to assure good quality. Typical pitfalls - and recommendations for avoiding them - are discussed. Special emphasis is given to the monitoring of trace contaminants in environmental matrices (e. g., water, sediment, plants, air). This book, based on the experience of specialists, constitutes an invaluable guide to the q
