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2.10 ConclusionsReferences; Chapter 3: Petroleum Biomarker Fingerprinting for Oil Spill Characterization and Source Identification; 3.1 Introduction; 3.2 Analytical Methodologies for Petroleum Biomarker Fingerprinting; 3.3 Fingerprinting Petroleum Biomarkers; 3.4 Effects of Weathering on Biomarker Fingerprinting; 3.5 Conclusions; References; Chapter 4: Characterization of Polycyclic Aromatic Sulfur Heterocycles for Source Identification; 4.1 Introduction; 4.2 Sulfur Compounds in Crude Oil and Petroleum Products; 4.3 Influence of Refinery Processes on PASH Patterns
6.2 Isotope Ratios and Their Measurement6.3 Bulk Isotope Ratios; 6.4 Compound-Specific Isotope Analysis (CSIA); 6.5 Weathering; 6.6 Other Isotopes; 6.7 Conclusions; References; Chapter 7: Emerging CEN Methodology for Oil Spill Identification; 7.1 Introduction; 7.2 Scope of the CEN Methodology; 7.3 Strategy for Identifying Oil Spills; 7.4 Tiered Levels of Analysis and Data Treatment; 7.5 The CEN Methodology in Practice: A Case Study; 7.6 Summary; Acknowledgment; References; Chapter 8: Advantages of Quantitative Chemical Fingerprinting in Oil Spill Source Identification; 8.1 Introduction
8.2 Qualitative Fingerprinting Methods

Sommario/riassunto

Oil Spill Environmental Forensics provides a complete view of the various forensic techniques used to identify the source of an oil spill into the environment. The forensic procedures described within represent various methods from scientists throughout the world. The authors explore which analytical and interpretative techniques are best suited for a particular oil spill project. This handy reference also explores the use of these techniques in actual environmental oil spills. Famous incidents discussed include the Exxon Valdez incident in 1989 and the Guanabara Bay, Brazil 2000. The