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| Altri autori (Persone)  | MorrisonRobert D<br>MurphyBrian <1939->  |
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| Nota di contenuto       | Front Cover; Environmental Forensics; Copyright Page; Contents; Foreword; Contributors; Chapter 1. Mercury; 1.1 Introduction; 1.2 Naturally Occurring Sources of Elemental Mercury; 1.3 Sources of Mercuric Mercury and Methylmercury; 1.4 Anthropogenic Sources; 1.5 Detecting Mercury in Indoor Air; 1.6 Mercury Forensics; References; Chapter 2. Asbestos; 2.1 Introduction; 2.2 Mineralogy and Sources; 2.3 Analytical Methods; 2.4 Summary; References; Chapter 3. Sewage; 3.1 Introduction; 3.2 Treatment Processes; 3.3 Sludge Treatment and Disposal; 3.4 Discharges; 3.5 Tracers; 3.6 Quality Control Issues 3.7 Dry Weight Determination3.8 Bile Acids; 3.9 Fatty Acids; 3.10 Caffeine and Triclosan; 3.11 LAS and other Surfactants; 3.12 Biological Organisms; 3.13 Other Bacterial Methods; 3.14 Biological Macrofaunal Communities; 3.15 Transformations in the Environment; 3.16 Summary; References; Chapter 4. Lead; 4.1 Introduction; 4.2 Geochemistry; 4.3 Principle Occurance of Lead; 4.4 Usage of Lead; 4.5 Lead Grades and Alloys of Lead; 4.6 Compounds of Lead; 4.7 Lead in the Environment and Lead Poisoning; 4.8 Environmental Transport, Distribution, and Transformation; 4.9 Regulations and Guidelines 4.10 Analytical Methods: Elemental vs Isotope Ratio4.11 Lead |

Forensics; References; Chapter 5. Chromium; 5.1 Introduction; 5.2 Principal Occurrence of Chromium; 5.3 History of Usage; 5.4 Geochemistry; 5.5 Regulatory Standards and Health Effects; 5.6 Analytical Techniques; 5.7 Natural Chromium in the Environment; 5.8 Anthropogenic Chromium in the Environment; 5.9 Isotope Applications for Chromium Investigations; References; Chapter 6. Methane; 6.1 Introduction; 6.2 Methane in the Environment; 6.3 Collection of Soil Gas Samples; 6.4 Types of Forensic Data; 6.5 Case Studies; 6.6 Summary 6.7 AcknowledgementsReferences; Chapter 7. Radioactive compounds; 7.1 Introduction; 7.2 Basic Concepts and Terminology; 7.3 Analytical Techniques; 7.4 Chemistry and Sources; 7.5 Homeland Security; 7.6 Signature Compounds; 7.7 Other Forensic Applications; 7.8 Summary; 7.9 Acknowledgements; References; Chapter 8. Pesticides; 8.1 Introduction; 8.2 Types of Pesticides; 8.3 Physical and Chemical Properties; 8.4 Analytical Testing; 8.5 Forensic Techniques; 8.6 Case Studies; References; Chapter 9. Perchlorate; 9.1 Introduction; 9.2 Perchlorate Chemistry; 9.3 Sources of Perchlorate 9.4 Analytical Techniques9.5 Forensic Techniques; 9.6 Conclusions; References; Chapter 10. Polichlorinated Biphenyls; 10.1 Introduction; 10.2 Analytical Chemistry Methods; 10.3 PCB Alteration Mechanisms; 10.4 Data Analysis; 10.5 Case-Study. Akwesasne, New York; 10.6 Acknowledgements; References; Chapter 11. Microbial forensics; 11.1 Introduction; 11.2 Soil and Microbial Forensics; 11.3 Traditional and Emerging Microbial Analysis; 11.4 Emerging Microbial Forensic Techniques; 11.5 Isotopic Testing and Correlation to Contaminant Source; 11.6 Conclusions; 11.7 Acknowledgements; References Chapter 12. Chlorinated solvents

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### Sommario/riassunto

Environmental forensics is the application of scientific techniques for the purpose of identifying the source and age of a contaminant. Over the past several years, this study has been expanding as a course of study in academia, government and commercial markets. The US Environmental Protection Agency (EPA), Federal Bureau of Investigation (FBI), and Federal Emergency Management Agency (FEMA) are among the governmental agencies that utilize the study of environmental forensics to ensure national security and to ensure that companies are complying with standards. Even the International Netwo

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