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Descrizione fisica	1 online resource (xv, 843 pages) : illustrations (some color), color maps
Collana	Gale eBooks
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Soggetti	Environmental forensics Oil spills - Environmental aspects Pollution - Measurement Environmental chemistry
Lingua di pubblicazione	Inglese
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Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Critical review of an interlaboratory forensic dataset : effects on data interpretation in oil spill studies / Eric Litman, Stephen Emsbo-Mattingly and Wendy Wong -- 2. Fifty years of petroleum geochemistry : avaluable asset in oil spill environmental forensics / R. Paul Philp -- 3. Fingerprinting analysis and source differentiation of petroleum-contaminated environmental samples / Chun Yang [and seven others] -- 4. The application of isotope geochemistry in stray gas investigations : case studies / Fred Baldassare and Elizabeth Chapman -- 5. Forensic aspects of airborne constituents following releases of crude oil into the environment / Shawn M. Wnek [and five others] -- 6. Combined gas and liquid chromatography tandem mass spectrometry applications for forensic lubricant and vegetable oil spill identification / Dayue Shang [and five others] -- 7. Environmental forensics study of crude oil and petroleum product spills in coastal and oilfield settings : combined insights from conventional GC-MS, thermodesorption-GC-

MS, and pyrolysis-GC-MS / Michael A. Kruge [and three others] -- 8. Paraffin wax spill identification by GC-FID and GC-MS / Paul G.M. Kienhuis [and four others] -- 9. Challenges and mysteries in oil spill fate and transport modeling / C.J. Beegle-Krause -- 10. Unraveling the complexities of upland spilled fuels : selected case studies / Kerylynn Krahforst and Edward (Ted) Healey -- 11. Advantages of multidimensional chemical fingerprinting in identifying the source of marine oil spills in Bohai Bay, China / Xiaoxing Liu -- 12. Distinguishing genetically-similar diesel fuels in taiwan using principal component analysis of diagnostic ratios / Suh-Huey Wu [and three others] -- 13. Application of CEN methodology in evaluating sources of multiple land-based fuel spills in Alberta, Canada / Detlef A. Birkholz -- 14. Development and application of phase-specific methods in oiled-water forensic studies / William B. Driskell and James R. Payne -- 15. Applications of the CEN methodology in multiple oil spills in Spanish waters / Joan Albaiges [and three others] -- 16. Fingerprinting of petroleum hydrocarbons in Malaysia using environmental forensic techniques : a 20-year field data review / Mohamad P. Zakaria, Chui-Wei Bong and Vahab Vaezzadeh -- 17. Long-term monitoring study of beached oils around the Shetland Isles, United Kingdom / Gordon Todd and David Runciman -- 18. The Erika oil spil l: 10 years monitoring program and effects of the weathering processes / Fanny Chever, Ronan Jezequel and Julien Guyomarch -- 19. Environmental assessment of spills related to oil exploitation in Canada's oil sands region / Jagos R. Radovic, Thomas B.P. Oldenburg and Stephen R. Larter -- 20. Chemical fingerprinting assessment of the impact to river sediments following the Bakken crude oil train derailment and fire, Mount Carbon, West Virginia / Scott A. Stout, Joseph Papineau and Matthew Adkins -- 21. The pixel-based chemometric approach for oil spill identification and hydrocarbon source differentiation : two case studies from the Persian Gulf / Kristoffer G. Poulsen [and four others] -- 22. Use of passive samplers to determine the source of dissolved PAHs in the Ottawa River, Toledo, Ohio / Mark J. Benotti, Lisa Lefkovitz and Marc A. Mills -- 23. Fingerprint and weathering characteristics of petroleum hydrocarbons in the coastal zone following the "7-16" Dalian crude oil spill, China / Chuanyuan Wang [and three others] -- 24. Case study in the use of forensic history in matters involving pipeline ruptures / A.J. Gravel, Sandra Layland and Julie Corley -- 25. Comparison of quantitative and semiquantitative methods in source identification following the OSPAR oil spill, in Parana, Brazil / Fabiana D.C. Gallotta and Jan H. Christensen -- 26. Different forensic approaches for hydrocarbons sources identification in an urban cluster environment : Guanabara Bay / Maria de F.G. Meniconi, Angela de L.R. Wagener and Jan H. Christensen -- 27. Hydrocarbon sources and biotechnology applications in Todos os Santos Bay, Brazil / Olivia M.C. de Oliveira [and five others] -- 28. Assessing the role of environmental conditions on the degradation of oil following the Deepwater Horizon oil spill / Hernando P. Bacosa [and three others] -- 29. Using stable and radiocarbon analyses as a forensic tool to find evidence of oil in the particulates of the water column and on the seafloor following the 2010 Gulf of Mexico oil spill / Samantha H. Bosman, Jeffrey P. Chanton and Kelsey L. Rogers -- 30. Red crabs as sentinel organisms in exposure of deep-sea benthos to Macondo oil following the Deepwater Horizon oil spill / Gregory S. Douglas [and four others] -- 31. Modeling distribution, fate, and concentrations of Deepwater Horizon oil in subsurface waters of the Gulf of Mexico / Deborah P. French-McCay [and six others] -- 32. Louisiana coastal marsh environments and MC252 oil biomarker chemistry / Buffy M. Meyer [and four others] --

	33. Novel biological exposures following the Deepwater Horizon oil spill revealed by chemical fingerprinting / Scott A. Stout [and three others] -- 34. Forensic identification of historical and ongoing tar oil releases in nearshore environments / Stephen Emsbo-Mattingly and Eric Litman.
Sommario/riassunto	This book presents aspects of environmental forensics in relation to "real-world" oil spill case studies and addresses releases of crude oil, natural gas/methane, automotive gasoline and other petroleum fuels, lubricants, vegetable oils, paraffin waxes, bitumen, manufactured gas plant residues, and urban runoff, and the challenges and long-term effects each brings. Also includes new analytical and chemical data processing and interpretation methods.