

1. Record Nr.	UNINA9911006503503321
Titolo	Chelating agents for land decontamination technologies // sponsored by Hazardous Waste Committee of the Environmental Council, Environmental and Water Resources Institute (EWRI) of the American Society of Civil Engineers ; edited by Daniel C.W. Tsang, Irene M.C. Lo, Rao Y. Surampalli
Pubbl/distr/stampa	Reston, VA, : American Society of Civil Engineers, c2012
ISBN	0-7844-7683-7
Descrizione fisica	1 online resource (295 p.)
Altri autori (Persone)	TsangDaniel C. W Lolrene Man-Chi SurampalliRao Y
Disciplina	628.5/5
Soggetti	Soil remediation Chelates Soils - Heavy metal content Heavy metals - Environmental aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1 Design, Implementation, and Economic/Societal Considerations of Chelant-Enhanced Soil Washing; Chapter 2 Remediation of Metal-Contaminated Sediments by Means of Chelant-Assisted Washing; Chapter 3 Operational Conditions of Chelant-Enhanced Soil Washing for Remediation of Metal-Contaminated Soil; Chapter 4 Electrochemical Treatment and Recovery of Chelating Agents; Chapter 5 Extraction of Metals from Spent Catalyst Using Fresh and Recovered Chelating Agents; Chapter 6 Enhanced Soil Flushing and Washing of Contaminated Soil and Sediments; Chapter 7 Heavy Metal Leaching from Contaminated Soils during the Percolation of EDTA: Observations and Modeling; Chapter 8 Roles of Metal-(Hydr)oxides in Chelant-Enhanced (Phyto)extraction; Chapter 9 Use of Chelating Agents in Electrochemical Remediation of Contaminated Soil
Sommario/riassunto	Sponsored by the Hazardous Waste Committee of the Environmental Council of the Environmental and Water Resources Institute of ASCE

Chelating Agents for Land Decontamination Technologies examines the application of chelating agents for the treatment of soil contaminated with metals. Contaminated land remediation is a widespread and costly problem, and the traditional excavation-and-disposal treatment method is not a sustainable solution. Chelating agents (organic compounds that can bind metal ions) are an attractive new technology for land decontamination, because chelating agents enhance metal extraction from contaminated soil or sediment and facilitate metal mobility in subsurface soils. Chapters in this book cover the process fundamentals as well as engineering applications and recent advances for the use of chelating agents in soil washing, soil flushing, phytoremediation, and electrokinetic remediation. They address the application of chelating agents for both ex situ and in situ soil remediation technologies. The extensive use of illustrations and summary tables is combined with up-to-date references. This compilation of engineering applications and research findings for different chelating agent-enhanced remediation technologies will be useful to environmental engineers, scientists, and decision makers regarding contaminated land remediation.
