Record Nr. UNINA9910298294503321 Heavy Metal Contamination of Soils: Monitoring and Remediation // **Titolo** edited by Irena Sherameti, Ajit Varma Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-14526-6 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (499 p.) Soil Biology, , 1613-3382;; 44 Collana Disciplina 363.7063 570 630 631.4 Soggetti Agriculture **Environmental monitoring** Soil science Soil conservation Monitoring/Environmental Analysis Soil Science & Conservation 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. Sources of heavy metals in soils -- Monitoring heavy metals in soils --Nota di contenuto Adaption strategies of plants and bacteria in response to heavy metals -- Approaches for the remediation of contaminated soils -- Genetic engineering – a tool to cleaning up contaminated. Following a description of the various sources and factors influencing Sommario/riassunto the contents of heavy metal pollution in post-catastrophic and agricultural soils, subsequent chapters examine soil enzymes and eggs as bio-monitors, lead adsorption, the effects of arsenic on microbial diversity, and the effects of Mediterranean grasslands on abandoned mines. A third section focuses on the adaptation strategies used by plants and bacteria, such as Pinus sylvestris in industrial areas, and the rhizosphere in contaminated tropical soils and soil treated with sewage

sludge. Further topics addressed include strategies of bioremediation, e.g. using transgenic plants as tools for soil remediation. This new

volume on heavy metals in soil will be of interest to researchers and scholars in microbial and plant biotechnology, agriculture, the environmental sciences and soil ecology.