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Titolo	Approaches to Heavy Metal Tolerance in Plants [[electronic resource] /] / by Sumira Jan, Javid Ahmad Parray
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2016
ISBN	981-10-1693-3
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (121 p.)
Disciplina	570
Soggetti	Plant physiology Plant anatomy Plant development Plant biochemistry Plant breeding Environmental management Plant Physiology Plant Anatomy/Development Plant Biochemistry Plant Breeding/Biotechnology Environmental Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Heavy Metals Uptake in Plants -- 2. Metal Tolerance Strategy in Plants -- 3. Heavy Metal Stress Signalling in Plants -- 4. Use of Mycorrhiza as Metal Tolerance Strategy in Plants -- 5. Phytoremediation: A Green Technology -- 6. Concepts for Improving Phytoremediation by Plant Engineering -- 7. Biodiversity Prospecting for Phytoremediation of Metals in the Environment.
Sommario/riassunto	This book summarizes the development of highly tolerant cultivars via plant breeding, genomics, and proteomic approaches. This book could supplement data for budding researchers by providing extensive ongoing measures to improve the detoxification competence of appropriate species via wide range of plant improvement approaches. It also offers insights into heavy metal signalling,metal chelation by

organic acids, amino acids, and phosphate derivatives, and illustrates other strategies that have been extensively investigated, such as genetic engineering, ecological improvement of the rhizosphere using mycorrhiza and chelator enhanced phytoremediation technology. This book could provide simple anthology for undergraduate and postgraduate students to understand fundamentals of heavy metal pollution in the environment. The book closes with a prelude to an inclusive study of biodiversity that could provide new biofilters for metal detoxification.