1. Record Nr. UNINA9910816176903321 **Titolo** Management of hazardous residues containing Cr(VI) [[electronic resource] /] / Maria Jose Balart Murria, editor Pubbl/distr/stampa Hauppauge, N.Y.,: Nova Science Publishers, c2011 **ISBN** 1-61668-901-3 Edizione [1st ed.] 1 online resource (390 p.) Descrizione fisica Collana Waste and waste management Altri autori (Persone) Balart MurriaMaria Jose Disciplina 628.4/2 Soggetti Chromium - Environmental aspects Hazardous waste site remediation 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 ""MANAGEMENT OF HAZARDOUS RESIDUES CONTAINING CR(VI)"": ""MANAGEMENT OF HAZARDOUS RESIDUES CONTAINING CR(VI)"": ""Contents""; ""Preface""; ""The Transfer and Speciation Transformation of Cr Leaching From Hazardous Wastes Containing Cr (VI) in an Underground Environment""; ""Abstract""; ""1. Introduction""; ""2. Collection and Preparation of Soil Samples""; ""3. Thermodynamics of Cr (VI), As(V) and Pb Adsorption on the Soils"; ""4. Transport of Cr(VI), As (V) and Pb in Soil Unsaturated zones""; ""5. Concentrations of Cr, As and Pb in Original Soils and Leached Soils"" ""6. Fractions of Cr. As and Pb in Original Soils and Leached Soils"""7. Valences of Cr and As in Original Soils and Leached Soils""; ""8. Transport and Speciation Transformation of Cr(VI) and As(V) in an Aquifer""; ""Conclusion""; ""References""; ""Waste Management and Minimisation of the Residues Containing Cr(VI)""; ""Abstract""; ""1. Introduction""; ""2. Ferrochrome Slag""; ""3. COPR""; ""3.1. Zero-Waste Technology""; ""3.2. Low Lime and No Lime COPR Processes""; ""4. Other Solid Wastes""; ""Conclusion""; ""References""; ""Technologies for Treating Cr(VI)-Containing Wastes"" ""Abstract"""1. Introduction""; ""2. Cr(VI) Adsorption""; ""2.1. Activated Carbon""; ""2.2. Biosorbents""; ""3. Phytoremediation""; ""4. Reduction Technologies""; ""4.1. Zero Valent Iron (ZVI)""; ""4.2. Photocatalysis""; ""5. Bioreduction and Related Biological Treatments""; ""5.1. Bacteria

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Reduction Mechanisms""; ""6. Stabilisation/Solidification""; ""Conclusion""; ""References""; ""An Overview of Chromium (VI) Free Conversion Coatings in Current Use""; ""Abstract""; ""1. Introduction"" ""2. Cleaning and Deoxidization"""3. Alternatives to Chromium (VI) based Conversion Coatings in Current Use""; ""3.1. Chromium (III) based Conversion Coatings"; ""3.2. Permanganate Based Conversion Coatings""; ""3.3. Phosphate Based Conversion Coatings""; ""3.4. Synthetic Polymer Based Conversion Coatings""; ""Conclusion""; ""References""; ""Volume Reduction of Cr(VI)-Bearing Sorbent Materials""; ""Abstract""; ""1. Removal of Cr(VI) From Wastewater Using Biosorbent""; ""2. Biosorbent Preparation""; ""2.1. Formaldehyde Treatment""; ""2.2. Drying Procedure""; ""3. Characterization Methods"" ""3.1. Scanning Electron Microscopy (SEM)""""3.2. Metal Detection in Aqueous Solution""; ""3.3. Thermogravimetric Analysis (TGA)""; ""4. Application of Kinetic and Isotherm Models to the Removal of Cr (VI)"": ""4. Adsorption Kinetics""; ""4.1. Adsorption Isotherms""; ""5. Optimization on a Laboratory Scale of the Removal Process of Cr (VI) From Wastewater""; ""6. Physical-Chemical Characterization Of Biosorbent""; ""6.1. Scanning Electron Microscopy (SEM)""; ""6.2. Thermogravimetric Analysis (TGA)""; ""7. Drying Results of Biosorbent (Sludge)""; ""Conclusion""; ""References"" ""Advances in Chromium (Vi) Separations Technology From Wastewaters""