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Titolo	Applications of Ion Exchange Materials in the Environment / / edited by Inamuddin, Mohd Imran Ahamed, Abdullah M. Asiri
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Descrizione fisica	1 online resource (XI, 225 p.)
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Soggetti	Environmental chemistry Water pollution Water quality Chemical engineering Environmental Chemistry Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution Water Quality/Water Pollution Industrial Chemistry/Chemical Engineering
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Nota di contenuto	Application of clay based ion exchanger materials for treatment of harmful water pollutants -- Application of ion exchange chromatography in environmental analysis -- Applications of composite ion exchangers for the treatment of natural dyes -- Applications of composite ion exchangers for the treatment of synthetic dyes -- Composite cation exchanger for the treatment of heavy metals -- Green approach: Microbes for removal of dyes and metals via ion binding -- Recovery or removal of metals by ion exchange -- Preparation of magnetite-sulfonated cellulose hybrid sorbent for the removal of Cu2+ ions -- Determination and treatment of cationic complexes -- Separation and purification of uncharged complexes -- Separation and purification of anionic complexes -- Removal of phthalic acid and isophthalic acid from aqueous solution by anion exchange resin -- Applications of ion exchange organic resins in

	water treatment -- Recovery of polyphenols -- Rare earth elements - separation methods yesterday and today -- Metal hexacyanoferrates: ion insertion (or exchange) capabilities.
Sommario/riassunto	This book presents the applications of ion-exchange materials in the area of environmental analysis and treatment. It includes chapters on applications of organic, inorganic and composite ion exchange materials and hexacyanoferrates in various fields such as chemical and biochemical separations, water purification, removal of harmful impurities, dyes and cationic and anionic complexes. This title is a highly valuable source of knowledge on ion-exchange materials and their applications suitable for postgraduate students and researchers but also to industrial R&D specialists in chemistry, chemical, and biochemical technology. Additionally, this book will provide an in-depth knowledge of ion-exchange column and operations suitable for engineers and industrialists.