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Descrizione fisica	1 online resource (279 p.)
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Soggetti	Electrochemistry Energy systems Chemical engineering Catalysis Tribology Corrosion and anti-corrosives Coatings Energy Systems Industrial Chemistry/Chemical Engineering Tribology, Corrosion and Coatings
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and indexes.
Nota di contenuto	PREFACE -- SYMBOLS AND ABBREVIATIONS -- LIST OF CONTRIBUTORS -- Introduction -- Electrodeposition of Semiconductors in Ionic Liquids -- A Disproportionation Reaction-driven Electroless Deposition of Metals in RTILs -- Voltammetry of Adhered Microparticles in Contact with Ionic Liquids: Principles and Applications -- Electrochemical Reaction of Organic Compounds in Ionic Liquids -- Electrode reactions of tris(2,2'-bipyridine) complexes of some transition metals in ionic liquids -- Electrocatalysis in Room Temperature Ionic Liquids -- CHAPTER 8. Oxygen Reduction Reaction in Ionic Liquids. An Overview -- Ionic liquids in surface protection -- Industrial Applications of Ionic Liquids -- INDEX.
Sommario/riassunto	Electrochemistry in Ionic Liquids is a set of two books dedicated to

presenting the latest novel and advanced research from around the world in this exciting area. These books highlight the important properties of electrochemistry in ionic liquids – as opposed to the more commonly used aqueous and organic environments – and the many applications.Readers will find 20 chapters gathered in two books: Electrochemistry in Ionic Liquids – Volume 1, Fundamentals: This book critically discusses electrode-electrolyte interfacial processes, reference electrodes, ultramicroelectrode voltammetry and scanning electrochemical microscopy, semi-integral and convolution voltammetry, and small-angle X-ray scattering coupled with voltammetry. The structure and properties of protic ionic liquids, deep-eutectic solvents, task-specific ionic liquids, polymeric ion gels, and lithium-ion solvation, useful for electrochemical application is also critically discussed. Electrochemistry in Ionic Liquids – Volume 2, Applications: The major topics covered in this book include electrodeposition and electroless deposition, voltammetry of adhered microparticles, electrochemistry of organic and organometallic compounds, electrocatalytic reactions, oxygen reduction reaction, ionic liquids in surface protection and lubrication, current industrial application of ionic liquids, and challenges, issues and recycling methods of ionic liquids in industrial developments.