Record Nr. UNINA9910380724203321 Autore Hammou Abdelkader Titolo Solid-State Electrochemistry: Essential Course Notes and Solved Exercises / / by Abdelkader Hammou, Samuel Georges Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-39659-2 Edizione [1st ed. 2020.] 1 online resource (XXIV, 319 p. 2 illus.) Descrizione fisica Disciplina 541.37 Soggetti Electrochemistry Chemistry, Inorganic Chemistry, Physical and theoretical Spectrum analysis Crystallography Energy storage **Inorganic Chemistry** Theoretical and Computational Chemistry Spectroscopy/Spectrometry Crystallography and Scattering Methods **Energy Storage** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Description of Ionic Crystals -- Methods and Techniques -- Transport in Ionic Solids -- Electrode Reactions -- Applications. Sommario/riassunto This book features the essential material for any graduate or advanced undergraduate course covering solid-state electrochemistry. It provides the reader with fundamental course notes and numerous solved

exercises, making it an invaluable guide and compendium for students of the subject. The book places particular emphasis on enhancing the reader's expertise and comprehension of thermodynamics, the Kröger-Vink notation, the variation in stoichiometry in ionic compounds, and of the different types of electrochemical measurements together with their technological applications. Containing almost 100 illustrations, a

glossary and a bibliography, the book is particularly useful for Master and PhD students, industry engineers, university instructors, and researchers working with inorganic solids in general.