Record Nr. UNINA9910787579403321 Autore Takami Tsuyoshi <1950, > **Titolo** Functional cobalt oxides: fundamentals, properties, and applications / / Tsuyoshi Takami Pubbl/distr/stampa Singapore:,: Pan Stanford Publishing,, [2014] ©2014 **ISBN** 0-429-07564-2 981-4463-32-9 Descrizione fisica 1 online resource (176 p.) 549.5 Disciplina Soggetti Cobalt oxides 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 at the end of each chapters. Front Cover; Contents; Preface; Acknowledgments; Chapter 1 Nota di contenuto Introduction: Chapter 2 Spin- State Crossover: Chapter 3 Li Ion Battery: Chapter 4 Huge Thermoelectric Power: Chapter 5 Room- Temperature Ferromagnetism: Chapter 6 Partially Disordered Antiferromagnetic Transition; Chapter 7 Superconductivity; Chapter 8 Transport Properties Combined with Charge, Spin, and Orbital: Magnetoresistance and Spin Blockade; Chapter 9 Intrinsic Inhomogeneity; Chapter 10 Move/ Diffuse and Charge/ Discharge Effect; Back Cover <P>This book explores why cobalt oxides have drawn interest as Sommario/riassunto functional materials due to their peculiar physical properties partially originating from a rich variety of the valence and spin state of cobalt ions. The book starts with the basics of condensed matter physics and advances toward the strong electron correlation system stage. It also provides up-to-date information on topics, such as thermoelectric power, superconductivity, solid oxide fuel cells, and nanostructure effect. </P>