Record Nr. UNINA9910140643103321 Autore Wesche Rainer <1956-> **Titolo** Physical properties of high-temperature superconductors / / Rainer Wesche Chichester, England:,: Wiley,, 2015 Pubbl/distr/stampa ©2015 **ISBN** 1-5231-1512-2 1-118-69667-0 1-118-69664-6 Descrizione fisica 1 online resource (546 p.) Collana Wiley Series in Materials for Electronic and Optoelectronic Applications 621.3/5 Disciplina Soggetti High temperature superconductors Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters and indexes. Nota di contenuto Cover; Title Page; Copyright; Contents; About the Author; Series Preface; Preface; Acknowledgment; List of Tables; Nomenclature; Chapter 1 Brief History of Superconductivity; 1.1 Introduction; 1.2 Milestones in the Field of Superconductivity; 1.2.1 Early Discoveries; 1.2.2 Progress in the Understanding of Superconductivity; 1.2.3 Discovery of High-Temperature Superconductivity: 1.2.4 Importance of Higher Transition Temperatures for Applications; References; Chapter 2 The Superconducting State; 2.1 Introduction; 2.2 Electrical Resistance; 2.3 Characteristic Properties of Superconductors 2.4 Superconductor Electrodynamics2.5 Thermodynamics of Superconductors: References: Chapter 3 Superconductivity: A Macroscopic Quantum Phenomenon; 3.1 Introduction; 3.2 BCS Theory of Superconductivity; 3.3 Tunneling Effects; References; Chapter 4 Type II Superconductors; 4.1 Introduction; 4.2 The Ginzburg-Landau Theory; 4.3 Magnetic Behavior of Type I and Type II Superconductors; 4.4 Critical Current Densities of Type I and Type II Superconductors; 4.5 Anisotropic Superconductors; References; Chapter 5 Cuprate Superconductors: An Overview; 5.1 Introduction 5.2 Families of Superconductive Cuprates 5.3 Variation of Charge Carrier Density (Doping); 5.4 Summary; References; Chapter 6 Crystal

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