Record Nr. UNINA9910819303503321 Transparent oxide electronics: from materials to devices // Pedro **Titolo** Barquinha ... [et al.] Pubbl/distr/stampa Chichester, West Sussex, : John Wiley & Sons, Ltd., 2012 **ISBN** 1-119-96774-0 1-280-58999-X 9786613619822 1-119-96699-X 1-119-96700-7 Edizione [2nd ed.] Descrizione fisica 1 online resource (337 p.) Altri autori (Persone) BarquinhaPedro Disciplina 621.3815/2 Soggetti Semiconductor films Oxides - Electric properties Thin film transistors Transparent semiconductors 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 and index. Nota di contenuto N-type transparent semiconducting oxides -- P-type transparent conductors and semiconductors -- Gate dielectrics on oxide electronics -- The (r)evolution of thin-film transistors (TFTs) -- Electronics with and on paper -- A glance at current and upcoming applications. Transparent electronics is emerging as one of the most promising Sommario/riassunto technologies for the next generation of electronic products, away from the traditional silicon technology. It is essential for touch display panels, solar cells, LEDs and antistatic coatings. The book describes the concept of transparent electronics, passive and active oxide semiconductors, multicomponent dielectrics and their importance for a new era of novel electronic materials and products. This is followed by a short history of transistors, and how oxides have revolutionized this field. It concludes with a glance at