Record Nr. UNINA9910830530903321 Nanostructured conductive polymers [[electronic resource] /] / edited **Titolo** by Ali Eftekhari Pubbl/distr/stampa Chichester, West Sussex, U.K.; Hoboken, N.J., : Wiley, 2010 **ISBN** 1-119-95654-4 1-280-76785-5 9786613678621 0-470-66133-X 0-470-66132-1 Descrizione fisica 1 online resource (810 p.) Altri autori (Persone) EftekhariAli <1979-> 620.192 Disciplina 620.19204297 Soggetti Nanostructured materials Conducting polymers 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 Nanostructured Conductive Polymers; Contents; Preface; Foreword; List of Contributors; Part One; 1 History of Conductive Polymers; 2 Polyaniline Nanostructures; 3 Nanoscale Inhomogeneity of Conducting-Polymer-Based Materials: Part Two: 4 Nanostructured Conductive Polymers by Electrospinning; 5 Composites Based on Conducting Polymers and Carbon Nanotubes; 6 Inorganic-Based Nanocomposites of Conductive Polymers; 7 Metallic-Based Nanocomposites of Conductive Polymers; 8 Spectroscopy of Nanostructured Conducting Polymers: 9 Atomic Force Microscopy Study of Conductive Polymers 10 Single Conducting-Polymer Nanowires11 Conductive Polymer Micro- and Nanocontainers; 12 Magnetic and Electron Transport Behaviors of Conductive-Polymer Nanocomposites; 13 Charge Transfer and Charge Separation in Conjugated Polymer Solar Cells; Part Three; 14 Nanostructured Conducting Polymers for (Electro)chemical Sensors; 15 Nanostructural Aspects of Conducting-Polymer Actuators; 16 Electroactive Conducting Polymers for the Protection of Metals against

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Sommario/riassunto

Providing a vital link between nanotechnology and conductive polymers, this book covers advances in topics of this interdisciplinary area. In each chapter, there is a discussion of current research issues while reviewing the background of the topic. The selection of topics and contributors from around the globe make this text an outstanding resource for researchers involved in the field of nanomaterials or polymer materials design. The book is divided into three sections: From Conductive Polymers to Nanotechnology, Synthesis and Characterization, and Applications.