Record Nr. UNINA9910464239303321 Current application of polymers and nano materials : special topic **Titolo** volume with invited peer reviewed papers only / / edited by: Amir Al-Ahmed Pubbl/distr/stampa Stafa-Zurich, Switzerland;; Enfield, New Hampshire:,: Trans Tech Publications, , [2010] ©2010 3-03813-329-9 **ISBN** 1-61344-669-1 Descrizione fisica 1 online resource (259 p.) Materials science forum, , 0255-5476 ; ; volume 657 Collana Altri autori (Persone) Al-AhmedAmir Disciplina 620.11 Soggetti **Polymers** Nanostructured materials Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and indexes. Nota di bibliografia Nota di contenuto Current Application of Polymers and Nano Materials; Foreword; Preface; Table of Contents: Metal-Containing Polyurethanes: An Overview: Synthesis, Characterization & Impedance Studies of some New Nano Filtration Membranes; X-Ray Photoelectron Spectroscopy Characterization of Polyaniline-Cellulose Ester Composite Membranes; Optical and Electrochemical Properties of a New Donor-Acceptor Type Conjugated Polymer Derived from Thiophene, Carbazole and 1,3,4-Oxadiazole Units Nonlinear Optical Studies on a New Poly{2-(biphenyl-4-yl)-5-[3,4didecyloxy-5-(1,3,4-oxadiazol-2-yl)thiophen-2-yl]-1,3,4-oxadiazole} Synthesis and Characterization of Titanium Dioxide Nanotubes for Photocatalytic Degradation of Aqueous Nitrobenzene in the Presence of Sunlight; Recent Developments of Nanomaterial Doped Paints for the Minimization of Biofouling in Submerged Structures; A Novel Single-Site Catalyst for Olefin Polymerization; Advanced Membrane Materials for Fuel Cell Applications Electrical and Proton Conducting Polymer Based Composite Electrodes

Incorporating Fuel Cell Catalysts: Screen Printed Systems Analysed

Using Hall MeasurementsComponents for PEM Fuel Cells: An Overview; Amorphous and nc-Si:H Intrinsic Thin Films for Solar Cells Applications; A Review of Dye Incorporated Conducting Polymers Application as Sensors and in Solar Cells; Electrochemical and Spectroscopic Dynamics of Nanostructured Polynuclear Sulphonic Acid-Doped Poly(2, 5-dimethoxyaniline); Keywords Index; Authors Index

## Sommario/riassunto

This Special Topic Volume constitutes the contributions of thirty-nine experts from the international scientific community who are involved in this field of research. It covers thoroughly some of the latest applications of polymers and nano-materials to solar-cells, fuel cells, catalysis, coatings, ion-exchange and sensors. It presents an up-to-date and in-depth coverage of the chemistry, physics, materials science and engineering applications of polymers and nano-materials. This remarkable cooperation of distinguished experts has resulted in a comprehensive review of the subject.