1. Record Nr. UNINA9911006689203321 Autore Umemura Kazuo Titolo Nanostructures, Nanomaterials and Nanoengineering and Materials **Technology and Applications** Pubbl/distr/stampa Zurich:,: Trans Tech Publications, Limited,, 2024 ©2024 **ISBN** 9783036414232 9783036404233 Edizione [1st ed.] Descrizione fisica 1 online resource (230 pages) Soggetti Nanotechnology Materials science Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nanostructures, Nanomaterials and Nanoengineering & Materials Nota di contenuto Technology and Applications -- Preface -- Table of Contents --Chapter 1: Materials for Opto- and Microelectronics -- Enhanced Electrical Conductivity of Graphene-Incorporated Copper Wire and its

Performances on Coaxial Cable Application at Sub 6 GHz -- Magneto-Conductive and Magnetic Properties in La1-xSrxMnO3 Thin Films on a-SiO2 Substrates Produced by Metal Organic Decomposition Method --Experiments of Failure and Damage in ITO-Coated PC/FPC with ACF Bonding due to Bending Fatigue -- Fabrication of Liquid-Metal Printed 2D Tin Oxide Nanosheets for Optoelectronic Applications -- Chapter 2: Materials for Sensor Devices -- Design of Electrical Sheet Resistance of Thin Film Measurement System Based on GM Cryocooler in Cryogenic Temperature -- Experimental Characterisation of BGBC OTFT for Indoor CO2 Gas Sensing -- Enhanced Performance of **Epoxidized Natural Rubber Nanocomposites for Strain Sensor** Application -- Flexible and Disposable Gas Sensors Based on Two-Dimensional Materials -- Chapter 3: Preparation and Properties of Nanomaterials -- Preparation of Silver Nanoparticles Deposited on TEMPO-Oxidized Cellulose Nanofibers -- Characterization and Self-Cleaning Properties of Silk Fabric Coated by Chitosan-Xyloglucan/nano-TiO2 Composite Film -- Investigation of Polylactic

Acid Nanofibers as Enhanced Plant Growth Medium by Improved Melt-Blowing Method -- Chitosan-Based Coating Incorporated with Chitin Nanofibers for Extension of the Shelf Life of Fruits -- Chapter 4: Preparation and Properties of Polymer and Composite Materials --Analysis of the Curing Behavior of Cyanate/Epoxy Resins for Fusion Magnets -- Rheological and Thermal Characterization of Glycerol Monostearate (GMS) as Compatibilizer on Polyethylene-Palm Stearin Composite -- Glass Transition Temperature and Mechanical Properties of Poly(Ethylene Carbonate)/Organoclay Composites --Effect of Rubber Formula on Performance of Natural Rubber Based Foam for Insulating Ceiling Board Application -- Chapter 5: Technologies of Chemical Production -- Using Borax as a Cross-Linking Agent in Poly(Vinyl Alcohol)/Hemp-Extracted Cellulose Hydrogels -- Physical and Chemical Characterization of Lignin-Based Carbon as Acidic Catalyst -- Chapter 6: Biomedical Materials and Nanomedicine -- The Physical Properties of Vanillin-Incorporated Irreversible Hydrocolloid Impression Material -- Antimicrobial Effect of Dental Adhesive on Cariogenic Multi-Species Biofilm -- Tailoring Structure-Dominated Mechanical Properties of Poly(L-Lactide Acid) Monofilaments via Controllable Molecular Relaxation

## Sommario/riassunto

Selected peer-reviewed extended articles based on abstracts presented at the 12th International Conference on Nanostructures, Nanomaterials and Nanoengineering & 8th International Conference on Materials Technology and Applications (joint ICNNN&ICMTA-2023) Aggregated Book.