1. Record Nr. UNISOBSOBE00070114

Autore	Costa, Giovanni <1942->
Titolo	La retribuzione ecniche e politiche di remunerazione del lavoro / Giovanni Costa
Pubbl/distr/stampa	Milano, : ISEDI, : A. Mondadori, [1981]
Descrizione fisica	158 p. ; 23 cm
Collana	Testi scientifici modulari . Serie di economia ; 9
Lingua di pubblicazione	Italiano
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2. Record Nr. UNINA9911019419003321

Autore	Andrady A. L (Anthony L.)
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Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2008
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Descrizione fisica	1 online resource (425 p.)
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Soggetti	Nanofibers Electrospinning Synthetic products Polymers
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 329-387) and index.
Nota di contenuto	SCIENCE AND TECHNOLOGY OF POLYMER NANOFIBERS; CONTENTS; Preface; Acknowledgments; 1 Introduction; 1.1 Historical Background; 1.2 Basic Experimental Approach; 1.3 Description of Electrostatic Spinning; 1.3.1 Droplet Generation; 1.3.2 Taylor's Cone Formation; 1.3.3 Launching of the Jet; 1.3.4 Elongation of Straight Segment; 1.3.5 Whipping Instability Region; 1.3.6 Solidification into Nanofiber; 1.4 Nanofiber Application Areas; 1.4.1 Filtration and Protective Apparel; 1.4.2 Tissue Scaffolding and Drug Delivery; 1.4.3 Nanocomposites; 1.4.4 Sensor Applications; 2 Introduction to Polymer Solutions 2.1 Average Molecular Weight2.2 Selecting Solvents: Solubility Parameter; 2.3 Thermodynamic Criterion for Solubility; 2.3.1 Change in Entropy; 2.3.2 Change in Enthalpy (H(mix)); 2.4 Macromolecular Models; 2.5 Viscosity of Dilute Polymer Solutions; 2.6 Concentrated Polymer Solutions; 3 Electrospinning Basics; 3.1 Molecular Weight Effects; 3.1.1 The Simha-Frisch Parameter, []c; 3.1.2 Solution Entanglement Number n(e); 3.2 Electrical Charge; 3.3 Bead Formation in Electrospinning; 3.4 Introduction to Electrospinning Practice; 4 Factors Affecting Nanofiber Quality; 4.1 The Polymer Solution 4.1.1 Concentration Effects4.1.2 Solvent System; 4.1.3 Conductivity; 4.1.4 Surface Tension; 4.1.5 Dielectric Constant ; 4.1.6 Volatility; 4.2 Environment; 4.3 Collector; 4.3.1 Collector Geometry; 4.3.2 Collector Material; 4.4 Applied Potential; 4.4.1 Applied Voltage V; 4.4.2 Polarity of the Tip; 4.5 Feed Rate; 4.6 Capillary Tip; 4.7 Gap Distance; 4.8 Relative Importance of Variables; 4.9 Examples of Reported Data; 5 Characterization of Nanofibers and Mats; 5.1 Mat Porosity and Pore Size Distribution; 5.1.1 Mercury Intrusion Porosimetry; 5.1.2 Liquid Extrusion Porosimetry 5.1.3 Capillary Flow Porometry5.1.4 Brunauer, Emmett, and Teller (BET) Surface Area; 5.1.5 Other Approaches; 5.2 Nanofiber Diameters and Pore Sizes by Microscopy; 5.2.1 Atomic Force Microscopy Technique; 5.3 Mechanical Properties of Mats; 5.3.1 Mat-Related Variables; 5.4 Single-Fiber Characterization; 5.4.1 Using the AFM for Single-Nanofiber Measurement; 5.4.1.1 Nanoindentation; 5.4.1.2 Bending Test; 5.4.1.3 Uniaxial Extension; 5.5 Nanofiber Crystallinity; 5.5.1 Differential Scanning Calorimetry (DSC) Technique; 5.5.2 X-ray Diffraction Methods; 6 Composite Nanofibers 6.1 Carbon Nanotubes in Nanofibers6.1.1 Dispersion of Nanotubes; 6.1.2 Orientation of Nanotubes; 6.1.3 Other Carbons; 6.2 Metal-Nanofiber Composites; 6.2.1 Direct Electrospinning; 6.2.2 Reductive Post-Reaction; 6.2.3 Gas-Phase Post-Reaction; 6.3 Polymer-Clay Composites; 6.4 Decorated or Exocomposite Nanofibers; 6.4.1 Nanofiber-Nanoparticle Composites; 6.4.1.1 Dry Methods; 6.4.1.2 Wet Methods; 6.4.2 Nanofiber-Nanotube Composites; 7 Biomedical Applications of Nanofibers; 7.1 Drug Delivery Applications; 7.1.1 Drug-Loaded Fibers; 7.1.2 Controlled Delivery of Macromolecules 7.2 Scaffolding Applications of Nanofibers
Sommario/riassunto	Discover new and emerging applications of polymer nanofibers alongside the basic underlying science and technology. With discussions exploring such practical applications as filters, fabrics, sensors, catalysts, scaffolding, drug delivery, and wound dressings, the book provides polymer scientists and engineers with a comprehensive, practical ""how-to"" reference. Moreover, the author offers an expert assessment of polymer nanofibers' near-term potential for commercialization. Among the highlights of coverage is the book's

presentation of the science and technology of electrospinning, including