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Collana	Handbook of engineering and speciality thermoplastics ; ; v. 4
Altri autori (Persone)	ThomasSabu P. MVisakh
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Nota di contenuto	Handbook of Engineering and Specialty Thermoplastics; Contents; List of Contributors; 1. Engineering and Specialty Thermoplastics: Nylons; 1.1 Polyamide-imides; 1.2 Polyetherimide (PEI); 1.3 Poly(Ether-Block-Amide); 1.4 Aromatic Polyamides:; 1.5 Polyaniline; 1.6 Polyimides; 1.7 New Challenges and Opportunities; References; 2. Polyamide Imide; 2.1 Introduction and History; 2.2 Polymerization; 2.3 Properties; 2.3.1 Solubility; 2.3.2 Crystallinity; 2.3.3 Thermal; 2.3.4 Mechanical; 2.3.5 Opto-electronic; 2.3.6 Hydrogen bonding; 2.4 Processing; 2.5 Applications; 2.5.1 Membrane Material 2.5.2 Coatings2.5.3 Electronic; 2.5.4 Optical; 2.6 Recent Developments on Blends and Composites; 2.6.1 Blends; 2.6.2 Composites; 2.7 Conclusions; References; 3. Polyphthalamides; 3.1 Introduction and History; 3.2 Polymerization and Fabrication; 3.3 Properties; 3.4 Chemical Stability; 3.5 Processing; 3.6 Applications; 3.7 Developments in Polyphthalamide Based Blends and Composites and their Applications; References; 4. Polyetherimide; 4.1 Introduction and

History; 4.2 Polymerization; 4.2.1 Two Step Polymerization Reaction; 4.2.2 One Step Processes
4.2.3 Synthesis Via Nucleophilic Substitution Reaction4.2.4 Synthesis Via Exchange Reactions; 4.3 Properties; 4.3.1 Thermal Properties; 4.3.2 Electrical Properties; 4.3.3 Mechanical Properties; 4.4 Stability; 4.4.1 Hydrolitic Stability; 4.4.2 Thermal Stability; 4.4.3 Thermo and Photo Oxidative Stability; 4.5 Special Additives; 4.6 Processing; 4.7 Applications; 4.8 Environmental Impact and Recycling; 4.9 Recent Developments In Polyetherimides Based Blends and Composities; References; 5. Poly(ether-block-amide) Copolymers Synthesis, Properties and Applications; 5.1 Introduction
5.2 Synthesis and Micro-phase Separated Morphology5.3 Nomenclature, Properties and Relevant Area Applications; 5.4 Compounding and Special Additives; 5.5 Environmental Impact and Recycling; 5.6 Poly ether-block-amides Membrane in Separation Processes; 5.6.1 Treatment of Gaseous Streams; 5.6.2 Water Permeable Poly(ether-block-amide) Membranes; 5.6.3 Separation of Organic Compounds from Organic and Aqueous Streams; 5.7 Poly(ether-block-amide) Membranes in Food; 5.8 Concluding Remarks; References; 6. Aromatic Polyamides (Aramids); 6.1 Introduction and History; 6.2 Polymerization and Fabrication
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7.3.2 Chemical Properties of Polyaniline

Sommario/riassunto

"The book summarizes many of the recent technical research accomplishments in the area of engineering polymers, such as oxygen containing main chain polymers (Nylons). The book emphasizes the various aspects of preparation, structure, processing, morphology, properties and applications of engineering polymers. Recent advances in the development and characterization of multi component polymer blends and composites (maco, micro and nano) based on engineering polymers is discussed in detail. The content of the book is unique as there are no books which deal with the recent advances synthesis, morphology, structure, properties and applications of engineering polymers and their blends and composites including nanocomposites. It covers an up-to-date record on the major findings and observations in the field"--

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1.6.3 Point-to-Point Throughput Estimation in Networks
1.6.4 Equitable Bandwidth Allocation for Content Distribution1.6.5 Equitable Location of Emergency Facilities; 1.6.6 Other Applications; 2: Nonlinear Resource Allocation; 2.1 Formulation and Optimality Properties; 2.2 Algorithms; 2.2.1 The Activity Deletion Algorithm; 2.2.2 The Activity Addition Algorithm; 2.2.3 The Constraints Evaluation Algorithm; 2.2.4 Lower and Upper Bounds; 2.3 Nonlinear Resource-Usage Constraint; 2.3.1 Formulation and Optimality Properties; 2.3.2 Algorithms; Computational Results; 2.4 Multiple Resource Constraints: A Special Case
2.5 Concluding Remarks and LITERATURE REVIEW3: Equitable Resource Allocation: Lexicographic Minimax and Maximin Optimization; 3.1 Formulation and Optimality Properties; 3.2 Minimax Algorithms; 3.2.1 The Minimax Activity Deletion Algorithm; 3.2.2 The Minimax Activity Addition Algorithm; 3.2.3 The Minimax Constraints Evaluation Algorithm; 3.2.4 Lower and Upper Bounds; 3.3 The Lexicographic Minimax Algorithm; Computational Results; 3.4 Extension to Nonseparable Objective Function; 3.5 Concluding Remarks and LITERATURE REVIEW; 4: Equitable Resource Allocation with Substitutable Resources
4.1 Representations of Substitutable Resources4.1.1 Transitive Substitutable Resources Represented by Trees; 4.1.2 Transitive Substitutable Resources Represented by Acyclic Graphs; 4.1.3 Nontransitive Substitutable Resources Represented by Bipartite Graphs; 4.1.4 Activity-Dependent Substitutable Resources Represented by Bipartite Graphs; 4.1.5 Solution Approach; 4.2 Transitive Substitutable Resources Represented by Trees; 4.2.1 Formulation; 4.2.2 The Minimax Algorithm; 4.2.3 The Lexicographic Minimax Algorithm; Computational Results; 4.2.4 Lower and Upper Bounds
4.3 Transitive Substitutable Resources Represented by Acyclic Graphs

Sommario/riassunto

"This book focuses primarily on equitable resource allocation and is a valuable reference to those who work to solve diverse optimization problems"--