

1. Record Nr.	UNINA9910830208003321
Titolo	Synthetic methods in step-growth polymers [[electronic resource] /] / edited by Martin E. Rogers, Timothy E. Long
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2003
ISBN	1-280-36677-X 9786610366774 0-470-24828-9 0-471-46137-7 0-471-22052-3
Descrizione fisica	1 online resource (619 p.)
Altri autori (Persone)	LongTimothy E. <1969-> RogersMartin E
Disciplina	547.7 668.4
Soggetti	Plastics Polycondensation
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	SYNTHETIC METHODS IN STEP-GROWTH POLYMERS; CONTRIBUTORS; CONTENTS; Preface; 1 Introduction to Synthetic Methods in Step- Growth Polymers; 1.1 Introduction; 1.2 Structure-Property Relationships in Step-Growth Polymers; 1.3 Synthesis of Step-Growth Polymers; References; 2 Polyesters; 2.1 Introduction; 2.2 Structure- Property Relationships; 2.3 Synthetic Methods; 2.4 Polyester Syntheses; References; 3 Polyamides; 3.1 Introduction; 3.2 Structure-Property Relationships; 3.3 Overview of Chemistry and Analytical Techniques; 3.4 Synthetic Methods; References; 4 Polyurethanes and Polyureas 4.1 Introduction4.2 Structure-Property Relationships; 4.3 Synthesis and Material Characterization; 4.4 Synthetic Methods; Acknowledgments; References; 5 Polyimides and Other High-Temperature Polymers; 5.1 Introduction; 5.2 Structure-Property Relationships; 5.3 Overview of Chemistry and Analytical Techniques; 5.4 Synthetic Methods; References; 6 Synthesis of Poly(arylene ether)s; 6.1 Introduction; 6.2 General Approaches for the Synthesis of Poly(arylene ether)s; 6.3

Control of Molecular Weight and/or Endgroups; 6.4 Control of Topologies; 6.5 Modification of Poly(arylene ether)s
6.6 Block and Graft Copolymers6.7 Miscellaneous Poly(arylene ether)s, Poly(arylene thioether)s, and Related Polymers; References; 7 Chemistry and Properties of Phenolic Resins and Networks; 7.1 Introduction; 7.2 Materials for the Synthesis of Novolac and Resole Phenolic Oligomers; 7.3 Novolac Resins; 7.4 Resole Resins and Networks; 7.5 Epoxy-Phenolic Networks; 7.6 Benzoxazines; 7.7 Phenolic Cyanate Resins; 7.8 Thermal and Thermo-Oxidative Degradation; References; 7.9 Appendix; 8 Nontraditional Step-Growth Polymerization: ADMET; 8.1 Introduction
8.2 Overview of Chemistry and Analytical Techniques8.3 Structure-Property Relationships; 8.4 Synthetic Methods: Silicon-Containing Polymers, Functionalized Polyolefins, and Telechelics; 8.5 Conclusions; References; 9 Nontraditional Step-Growth Polymerization: Transition Metal Coupling; 9.1 Introduction; 9.2 Structure-Property Relationships; 9.3 Overview of Chemistry and Analytic Techniques; 9.4 Synthetic Methods; Acknowledgment; References; 10 Depolymerization and Recycling; 10.1 Introduction; 10.2 Structure-Property Relationships
10.3 Factors Affecting the use of Recycled Monomers or Oligomers10.4 Chemistry and Catalysis; 10.5 Experimental Methods; 10.6 Synthetic Methods; References; Index

Sommario/riassunto

Synthetic Methods in Step-Growth Polymers provides a concise source of information on synthetic techniques, purification, and characterization methods for step-growth polymers and also addresses future synthetic trends.
