

1. Record Nr.	UNINA9910462406703321
Autore	Brazel Christopher S. <1970->
Titolo	Fundamental principles of polymeric materials [[electronic resource] /] Christopher S. Brazel, Stephen L. Rosen
Pubbl/distr/stampa	Hoboken, New Jersey, : Wiley, 2012
ISBN	1-118-27532-2 1-118-27531-4 1-280-76811-8 9786613678881 1-118-27529-2
Edizione	[3rd ed.]
Descrizione fisica	1 online resource (427 p.)
Classificazione	TEC009010
Altri autori (Persone)	RosenStephen L. <1937->
Disciplina	668.9
Soggetti	Polymers Polymer engineering Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Revised edition of: Fundamental principles of polymeric materials / Stephen L. Rosen. 2nd ed. c1993.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Machine generated contents note: Preface to the 3rd Edition Preface to the 2nd Edition Acknowledgments 1.Introduction Part I. Polymer Fundamentals 2. Types of Polymers 3. Molecular Structure of Polymers 4. Polymer Morphology 5. Characterization of Molecular Weight 6. Thermal Transitions in Polymers 7. Polymer Solubility and Solutions Part 2. Polymer Synthesis 8. Step-Growth (Condensation) Polymerization 9. Free Radical Addition (Chain-Growth) Polymerization 10. Advanced Polymerization Methods 11. Copolymerization 12. Polymerization Practice Part 3. Polymer Properties 13. Rubber Elasticity 14. Introduction to Viscous Flow and the Rheological Behavior of Polymers 15. Linear Viscoelasticity 16. Polymer Mechanical Properties Part 4. Polymer Processing and Performance 17. Processing 18. Polymer Applications: Plastics and Plastic Additives 19. Rubbers and Thermoplastic Elastomers 20. Polymer Applications: Synthetic Fibers 21. Polymer Applications: Surface Finishes and Coatings 22. Polymer Applications: Adhesives Index .

Sommario/riassunto

"This new edition introduces the field of polymers, balancing chemistry, physics, and engineering applications. It updates a classic text used in introductory polymer courses, but has not been updated since 1993. This revised and updated edition focuses on new technologies that use polymers, new feedstocks, polymers derived from biological sources, new polymerization strategies, and analysis of polymers. Further, the third edition includes new homework problems and examples. With the updates mentioned, the book now includes the latest concepts while also remaining friendly to students new to the field"--
