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Titolo	Fundamentals of polymer science for engineers / / Stokyo Fakirov
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Descrizione fisica	1 online resource (481 pages) : illustrations
Classificazione	431.9 620.192
Disciplina	668.9
Soggetti	Polymers Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes bibliographical references and index
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Assessment -- Physical Properties of Polymers. Flexibility of Polymer Chains and Its Origin -- Amorphous State of Polymers -- Crystalline Polymers -- Mechanics of Polymers -- Polymer Solutions -- Polymer Molecular Weights -- Methods for the Characterization and Investigation of Polymers -- Beginning the Treatment -- Synthesis of Polymers. Polycondensation (Condensation Polymerization) -- Chain Polymerization -- Synthesis of Polymers With Special Molecular Arrangements -- Chemical Reactions with Macromolecules. New Non-traditional Methods for Polymer Synthesis -- Polymer Materials and Their Processing. Polymer Materials and Their Processing -- Polymers for Special Applications.
Sommario/riassunto	Filling a gap in the market, this textbook provides a concise, yet

thorough introduction to polymer science for advanced engineering students and practitioners, focusing on the chemical, physical and materials science aspects that are most relevant for engineering applications. After covering polymer synthesis and properties, the major section of the book is devoted to polymeric materials, such as thermoplastics and polymer composites, polymer processing such as injection molding and extrusion, and methods for large-scale polymer characterization. The text concludes with an overview of engineering plastics. The emphasis throughout is on application-relevant topics, and the author focuses on real-life, industry-relevant polymeric materials.