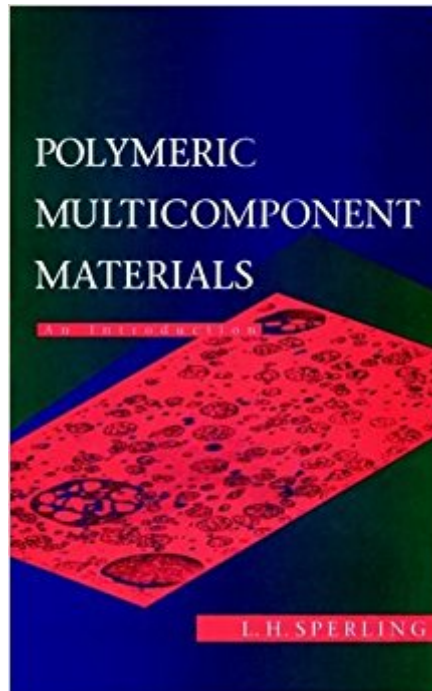




The book was found

# Polymeric Multicomponent Materials: An Introduction



## Synopsis

The only comprehensive review of multicomponent polymer theory and applications *Polymeric Multicomponent Materials* is the first comprehensive review of the field to appear since the author's 1976 classic, *Polymer Blends and Composites*. As such, it is an indispensable resource for professionals and graduate students alike in polymer science and engineering, chemistry, chemical engineering, materials science and engineering, physics, and mechanical engineering. The book begins with a review of essential terms, concepts, theories, and experimental facts and procedures concerning polymer-polymer and polymer-nonpolymer combinations. This material is followed by a series of chapters focusing on the relatively new subfield that has developed around polymer surfaces and interfaces. In the final section, the author covers a wide range of engineering polymer materials and systems. Emphasizing synthesis and mechanical behavior throughout, Professor Sperling treats all relevant chemical and physical aspects of both thermoplastics and thermosets. He provides in-depth coverage of most polymeric multicomponent materials currently being synthesized, including toughened plastics, reinforced elastomers, polymer blends, interpenetrating polymer networks, graft and block copolymers, and reinforcing and filling agents. He also explores a broad array of specific applications, including those for impact-resistant plastics, structural composites, coatings, carbon black reinforced elastomers, and fiber reinforced plastics. *Polymeric Multicomponent Materials* is certain to be the standard text/reference in the field well into the next century.

## Book Information

Hardcover: 416 pages

Publisher: Wiley-Interscience; 1 edition (September 24, 1997)

Language: English

ISBN-10: 0471041386

ISBN-13: 978-0471041382

Product Dimensions: 6.2 x 0.9 x 9.4 inches

Shipping Weight: 1.8 pounds

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,905,104 in Books (See Top 100 in Books) #44 in Books > Science & Math > Chemistry > Polymers & Macromolecules #142 in Books > Engineering & Transportation > Engineering > Chemical > Plastics #1125 in Books > Textbooks > Engineering > Chemical Engineering

## Customer Reviews

Designed for a graduate materials course, this up-to-date, well-organized text carefully guides readers through the ever-advancing field of polymer blends and composites, with special reference to synthesis and mechanical behavior. Includes coverage of the thermodynamics of polymer blend miscibility, polymer surfaces and interfaces, the mechanisms of fracture and fracture resistance and how two-phased systems can impart toughness and more. Impact resistant plastics, coatings, aerospace and other applications are also discussed.

The only comprehensive review of multicomponent polymer theory and applications Polymeric Multicomponent Materials is the first comprehensive review of the field to appear since the author's 1976 classic, Polymer Blends and Composites. As such, it is an indispensable resource for professionals and graduate students alike in polymer science and engineering, chemistry, chemical engineering, materials science and engineering, physics, and mechanical engineering. The book begins with a review of essential terms, concepts, theories, and experimental facts and procedures concerning polymer-polymer and polymer-nonpolymer combinations. This material is followed by a series of chapters focusing on the relatively new subfield that has developed around polymer surfaces and interfaces. In the final section, the author covers a wide range of engineering polymer materials and systems. Emphasizing synthesis and mechanical behavior throughout, Professor Sperling treats all relevant chemical and physical aspects of both thermoplastics and thermosets. He provides in-depth coverage of most polymeric multicomponent materials currently being synthesized, including toughened plastics, reinforced elastomers, polymer blends, interpenetrating polymer networks, graft and block copolymers, and reinforcing and filling agents. He also explores a broad array of specific applications, including those for impact-resistant plastics, structural composites, coatings, carbon black reinforced elastomers, and fiber reinforced plastics. Polymeric Multicomponent Materials is certain to be the standard text/reference in the field well into the next century.

[Download to continue reading...](#)

Polymeric Multicomponent Materials: An Introduction Multicomponent Silicides for Thermoelectric Materials: Phase Stabilities, Synthesis, and Device Tailoring (SpringerBriefs in Materials) Tribology of Polymeric Nanocomposites, Volume 55, Second Edition: Friction and Wear of Bulk Materials and Coatings (Tribology and Interface Engineering) Macromolecular Design of Polymeric Materials (Plastics Engineering) Analysis and Deformulation of Polymeric Materials: Paints, Plastics,

Adhesives, and Inks (Topics in Applied Chemistry) Multicomponent Reactions in Organic Synthesis  
Polymeric Surfactants (De Gruyter Textbook) Polymeric Drugs and Drug Delivery Systems (ACS  
Symposium Series) Bioactive Polymeric Systems: An Overview Engineering Materials 3: Materials  
Failure Analysis: Case Studies and Design Implications (International Series on Materials Science  
and Technology) (v. 3) Engineering Materials 2, Fourth Edition: An Introduction to Microstructures  
and Processing (International Series on Materials Science and Technology) Engineering Materials  
2: An Introduction to Microstructures, Processing and Design (International Series on Materials  
Science and Technology) (v. 2) His Dark Materials Trilogy (His Dark Materials) Exam Prep:  
Hazardous Materials Awareness And Operations (Exam Prep: Hazardous Materials Awareness &  
Operations) Composite Materials: Materials, Manufacturing, Analysis, Design and Repair  
Electrodeposition: The Materials Science of Coatings and Substrates (Materials Science and  
Process Technology) Transport Phenomena in Materials Processing (The Minerals, Metals &  
Materials Series) Chemistry of Hazardous Materials (6th Edition) (Hazardous Materials Chemistry)  
Land Law: Text, Cases, and Materials (Text, Cases And Materials) Materials: Engineering, Science,  
Processing and Design (Materials 3e North American Edition w/Online Testing)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)