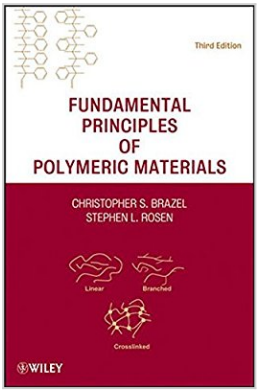

Fundamental Principles of Polymeric Materials

By Christopher S. Brazel, Stephen L. Rosen

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen

New edition brings classic text up to date with the latest science, techniques, and applications

With its balanced presentation of polymer chemistry, physics, and engineering applications, the Third Edition of this classic text continues to instill readers with a solid understanding of the core concepts underlying polymeric materials. Both students and instructors have praised the text for its clear explanations and logical organization. It begins with molecular-level considerations and then progressively builds the reader's knowledge with discussions of bulk properties, mechanical behavior, and processing methods.

Following a brief introduction, *Fundamental Principles of Polymeric Materials* is divided into four parts:

- Part 1: Polymer Fundamentals
- Part 2: Polymer Synthesis
- Part 3: Polymer Properties
- Part 4: Polymer Processing and Performance

Thoroughly Updated and Revised

Readers familiar with the previous edition of this text will find that the organization and style have been updated with new material to help them grasp key concepts and discover the latest science, techniques, and applications. For example, there are new introductory sections on organic functional groups focusing on the structures found in condensation polymerizations. The text also features new techniques for polymer analysis, processing, and microencapsulation as well as emerging techniques such as atom transfer radical polymerization.

At the end of each chapter are problems—including many that are new to this edition—to test the reader's grasp of core concepts as they advance through the text. There are also references leading to the primary literature for further

investigation of individual topics.

A classic in its field, this text enables students in chemistry, chemical engineering, materials science, and mechanical engineering to fully grasp and apply the fundamentals of polymeric materials, preparing them for more advanced coursework.

Fundamental Principles of Polymeric Materials

By Christopher S. Brazel, Stephen L. Rosen

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen

New edition brings classic text up to date with the latest science, techniques, and applications

With its balanced presentation of polymer chemistry, physics, and engineering applications, the Third Edition of this classic text continues to instill readers with a solid understanding of the core concepts underlying polymeric materials. Both students and instructors have praised the text for its clear explanations and logical organization. It begins with molecular-level considerations and then progressively builds the reader's knowledge with discussions of bulk properties, mechanical behavior, and processing methods.

Following a brief introduction, *Fundamental Principles of Polymeric Materials* is divided into four parts:

- Part 1: Polymer Fundamentals
- Part 2: Polymer Synthesis
- Part 3: Polymer Properties
- Part 4: Polymer Processing and Performance

Thoroughly Updated and Revised

Readers familiar with the previous edition of this text will find that the organization and style have been updated with new material to help them grasp key concepts and discover the latest science, techniques, and applications. For example, there are new introductory sections on organic functional groups focusing on the structures found in condensation polymerizations. The text also features new techniques for polymer analysis, processing, and microencapsulation as well as emerging techniques such as atom transfer radical polymerization.

At the end of each chapter are problems—including many that are new to this edition—to test the reader's grasp of core concepts as they advance through the text. There are also references leading to the primary literature for further investigation of individual topics.

A classic in its field, this text enables students in chemistry, chemical engineering, materials science, and mechanical engineering to fully grasp and apply the fundamentals of polymeric materials, preparing them for more advanced coursework.

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen Bibliography

- Sales Rank: #950915 in Books
- Published on: 2012-05-22
- Original language: English
- Number of items: 1
- Dimensions: 10.10" h x 1.10" w x 7.20" l, 2.00 pounds

- Binding: Hardcover
- 432 pages

Editorial Review

Review

"Thus, this is a felicitous compilation on polymer chemistry, physics and engineering, which I can recommend to any of my undergraduate students." (*Materials Views*, 31 January 2014)

"With its balanced presentation of polymer chemistry, physics, and engineering applications, the updated and revised third edition of Fundamental principles of polymeric materialsprovides a solid understanding of the main concepts underlying polymeric materials." (*RFP Rubber Fibres Plastics International*, 1 January 2014)

"This is certainly an excellent book from which to learn about various aspects of polymer chemistry." (*IEEE Electrical Insulation Magazine*, 1 January 2014)

"Recommended. Upper-division undergraduates and lower-level graduate students." (*Choice*, 1 December 2012)

From the Publisher
Revised due to new developments in the polymer area. Contains a broad, unified introduction to the subject matter that will be of immediate practical value plus a foundation for more advanced study. New features include a discussion of liquid-crystal polymers, the Flory-Huggins theory, group-transfer polymerization, a quantitative treatment of Ziegler-Natta polymerization with three new worked-out examples and much more. End-of-chapter problems have been added along with practical illustrations of the material.

From the Back Cover

New edition brings classic text up to date with the latest science, techniques, and applications

With its balanced presentation of polymer chemistry, physics, and engineering applications, the *Third Edition* of this classic text continues to instill readers with a solid understanding of the core concepts underlying polymeric materials. Both students and instructors have praised the text for its clear explanations and logical organization. It begins with molecular-level considerations and then progressively builds the reader's knowledge with discussions of bulk properties, mechanical behavior, and processing methods.

Following a brief introduction, *Fundamental Principles of Polymeric Materials i*s divided into four parts:

- Part 1: Polymer Fundamentals
- Part 2: Polymer Synthesis
- Part 3: Polymer Properties
- Part 4: Polymer Processing and Performance

Thoroughly Updated and Revised

Readers familiar with the previous edition of this text will find that the organization and style have been updated with new material to help them grasp key concepts and discover the latest science, techniques, and applications. For example, there are new introductory sections on organic functional groups focusing on the

structures found in condensation polymerizations. The text also features new techniques for polymer analysis, processing, and microencapsulation as well as emerging techniques such as atom transfer radical polymerization.

At the end of each chapter are problems—including many that are new to this edition—to test the reader's grasp of core concepts as they advance through the text. There are also references leading to the primary literature for further investigation of individual topics.

A classic in its field, this text enables students in chemistry, chemical engineering, materials science, and mechanical engineering to fully grasp and apply the fundamentals of polymeric materials, preparing them for more advanced coursework.

Users Review

From reader reviews:

Mamie Wilson:

Do you have favorite book? Should you have, what is your favorite's book? Guide is very important thing for us to be aware of everything in the world. Each guide has different aim or even goal; it means that book has different type. Some people experience enjoy to spend their time for you to read a book. They are reading whatever they acquire because their hobby is actually reading a book. Why not the person who don't like looking at a book? Sometime, man or woman feel need book whenever they found difficult problem or exercise. Well, probably you will want this Fundamental Principles of Polymeric Materials.

Angela Smith:

Do you one of people who can't read gratifying if the sentence chained inside straightway, hold on guys that aren't like that. This Fundamental Principles of Polymeric Materials book is readable by simply you who hate those perfect word style. You will find the facts here are arrange for enjoyable reading through experience without leaving even decrease the knowledge that want to provide to you. The writer involving Fundamental Principles of Polymeric Materials content conveys the idea easily to understand by many people. The printed and e-book are not different in the written content but it just different as it. So , do you nevertheless thinking Fundamental Principles of Polymeric Materials is not loveable to be your top listing reading book?

Glenda Rizzo:

Reading a book to get new life style in this calendar year; every people loves to learn a book. When you read a book you can get a lots of benefit. When you read textbooks, you can improve your knowledge, simply because book has a lot of information into it. The information that you will get depend on what types of book that you have read. If you need to get information about your research, you can read education books, but if you act like you want to entertain yourself you are able to a fiction books, these us novel, comics, and soon. The Fundamental Principles of Polymeric Materials will give you a new experience in studying a book.

Sena Meyer:

As we know that book is vital thing to add our information for everything. By a publication we can know everything we wish. A book is a pair of written, printed, illustrated or even blank sheet. Every year seemed to be exactly added. This e-book Fundamental Principles of Polymeric Materials was filled with regards to science. Spend your time to add your knowledge about your science competence. Some people has various feel when they reading a book. If you know how big advantage of a book, you can experience enjoy to read a e-book. In the modern era like right now, many ways to get book that you just wanted.

Read Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen for online ebook

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen books to read online.

Online Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen ebook PDF download

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen Doc

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen Mobipocket

Fundamental Principles of Polymeric Materials By Christopher S. Brazel, Stephen L. Rosen EPub