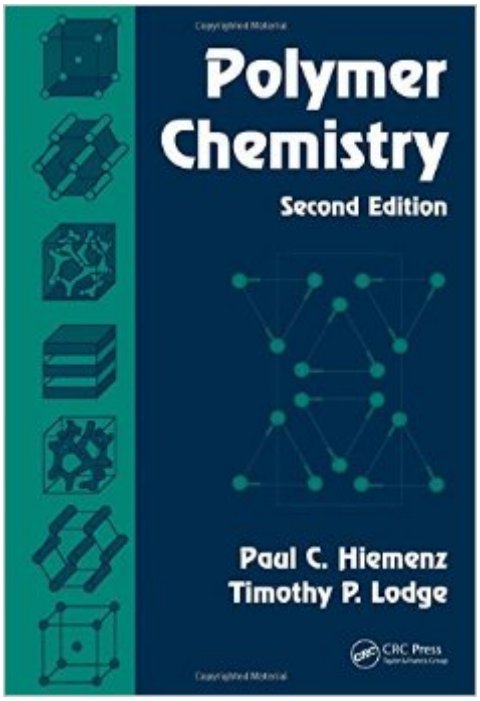
Polymer Chemistry, Second Edition



Synopsis

â œHighly recommended!â • â “ CHOICE New Edition Offers Improved Framework for Understanding Polymers Written by well-established professors in the field, Polymer Chemistry, Second Edition provides a well-rounded and articulate examination of polymer properties at the molecular level. It focuses on fundamental principles based on underlying chemical structures, polymer synthesis, characterization, and properties. Consistent with the previous edition, the authors emphasize the logical progression of concepts, rather than presenting just a catalog of facts. The book covers topics that appear prominently in current polymer science journals. It also provides mathematical tools as needed, and fully derived problems for advanced calculations. This new edition integrates new theories and experiments made possible by advances in instrumentation. It adds new chapters on controlled polymerization and chain conformations while expanding and updating material on topics such as catalysis and synthesis, viscoelasticity, rubber elasticity, glass transition, crystallization, solution properties, thermodynamics, and light scattering. Polymer Chemistry, Second Edition offers a logical presentation of topics that can be scaled to meet the needs of introductory as well as more advanced courses in chemistry, materials science, and chemical engineering.

Book Information

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Customer Reviews

Classic text on polymer chemistry. Professors usually teach directly out of this book, and are excited to discover that it is back in print. Though "Polymer Chemistry" has not been updated since 1984, by

no means is it outdated. Intended for senior-level undergraduate or beginning graduate level, this text covers introductory terminology, basic chain dynamics, basic rheological characterization, crystallization, thermodynamics of the glassy state, synthesis, reaction kinetics, and solution thermodynamics.This book is written from the chemist’s perspective and meant as an introduction. Chemists wishing to specialize in the organic synthesis aspect may also benefit from "Principles of Polymerization" by Odian. Materials engineers would likewise turn to a polymer physics text and keep Hiemenz as a reference.While this book is indispensible as a student text, its format isn’t conducive to leisurely reading. A professional wishing to brush-up on skills may benefit from other texts.

This 2nd edition is nearly a total rewrite. The fine structure of the first edition is greatly strengthened by the most recent advances in polymer science and crystal clear explanations of the important phenomena, especially in polymer physics. Worked exercises and challenging homework problems aid student learning. I have used all the major texts to teach introductory polymer science to seniors and also graduate students in chemical engineering, materials science, chemistry and biomedical engineering. Hiemenz and Lodge is the clearly the best. Polymer Chemistry, Second Edition

I was required to get this book for a college polymer class. Its not bad, but it does lack in examples. It never fully explains how to do many types of problems, which makes studying for exams much harder. If your prof fills in the blanks, its okay, or if you just want to understand some general principles, its great. It just lacks on the particular details of solving more complex problems.

I read few chapters and found it is well written. It was very useful for me to understand they the book was trying to tell. This was the first time I ever read anything about polymer but still I found the book readable.

This book is fun and easy to read and teaches you about polymer chemistry in a way that is irresistible. You’re probably a student at a prestigious university under a stellar professor like Jim Schneider. (If not, you should be because studying this material won’t get you anywhere without a solid background). So you are in good hands with your professor. This book will give you a little comfort and insurance.

Everything was too wordy and poorly written. Did not explain topics well at all and really spent too

much time dwelling on things that were simple or insignificant. I gave up using this book pretty quickly. It gets 2 stars for having information, but is not readable.

As I have said in my title, this is an excellent book for introductory physical polymer science. Not that good for organic/synthetic polymer science.

I'm using this book and the Rubinstein book for a polymer physical chemistry class. Hiemenz and Lodge do a great job explaining things.