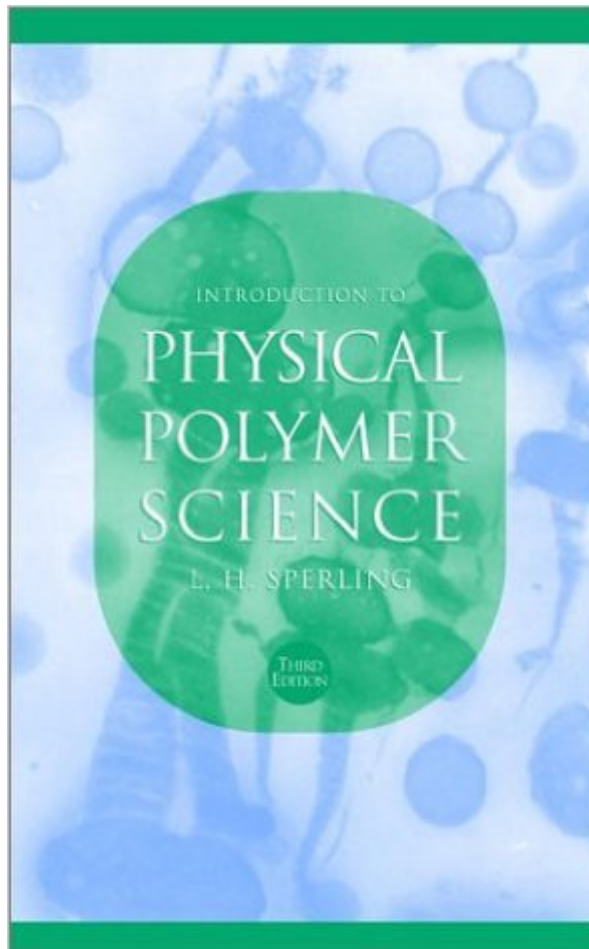


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# Introduction To Physical Polymer Science, 3rd Edition



## Synopsis

A revised edition of a classic text Polymers are macromolecules built up by linking large numbers of smaller molecules. Due to their diverse physical properties, polymers have become central to a number of important industries, including plastics, rubber, adhesives, fiber, and paint industries. Introduction to Physical Polymer Science, Third Edition is the definitive reference for polymer researchers. Emphasizing interrelationships between molecular structure and the morphology and mechanical behavior of polymers, the Third Edition incorporates new findings in processing and characterizing polymers. Many new worked examples and study problems have been added. The new material includes: New chapters devoted to polymer surfaces and polymer blends Discussions on solid-state nuclear magnetic resonance methods, self-assembled polymers, scaling law basics, polymer processing, hyperbranched dendrimers, and the kinetics of polymerization Current research interests, such as polyolefins, thermoset plastics, pyroelectric and piezoelectric polymers, supercritical fluids, biomedical applications, film formation, and natural polymers Introduction to Physical Polymer Science, Third Edition continues to be the ideal resource for students and professional chemists, chemical engineers, materials scientists, and polymer scientists.

## Book Information

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## Customer Reviews

Sperling's book stands out as the most useful polymer science text, compiling essential elements of varied physical properties and behaviour. The third edition has up to date material on all aspects of polymer physics including chapters on polymer surfaces and interfaces as well as on

multicomponent polymer systems and liquid crystalline polymers. In my opinion, as a beginners guide, the book is definitely outscored over all other texts in market including Billmeyer, Painter Coleman, Rodriguez, etc. The book also contains a good description of various polymer characterization techniques. The material covered is adequate to provide basic information about each field in polymer physics, and the textbook has enough material to be useful for two or three courses. The author presents a lot of tables in the book, that succinctly summarize important points related to that topic. Coupled with Strobl's book, which has slightly advanced description of polymer physics, and Doi's Introduction to polymer physics, which has mathematically intensive description of statistical mechanics of polymers, you have three texts to teach you essentially everything there is to know in Polymer Physics!! (Perhaps you can add a text for Polymer Rheology, say by Larson!)

I read about 90% of this book for my course in physical polymer science. I didn't read the last couple of chapters. This book was a good introduction to the subject. I learned a lot about physical polymer science simply from reading this text.

Like most textbooks, it's verbose and hard to read at times. However, if one were to study polymers for more than just a course, it makes a handy reference tool unlike any other I or my friends have come across. Having this book for other courses would have been worth paying full price (but you don't have to) and I only wish I had come across it earlier.

This book introduced me to physical polymer science. I have a strong interest in this field. The book is very informative but not easy to read. However, it is very helpful that key points in the chapters are depicted quite nicely by diagrams and graphs.

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