Physical Properties of Macromolecules
Laurence A. Belfiore

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DESCRIPTION

Explains and analyzes polymer physical chemistry research methods and experimental data

Taking a fresh approach to polymer physical chemistry, *Physical Properties of Macromolecules* integrates the two foundations of physical polymer science, theory and practice. It provides the tools to understand polymer science concepts and research methods, while also instructing how to analyze experimental data.

Drawing on the author's own extensive research in physical properties of polymers as well as more traditional topics, this text offers detailed analysis of numerous problems in polymer science, including laboratory data and research results. Topics include:

- Solid-state dynamics of polymeric materials
- Glass transitions in amorphous polymers
- Semicrystalline polymers and melting transitions
- Viscoelastic behavior
Relaxation processes

Macromolecule-metal complexes

Mechanical properties of linear and crosslinked polymers

Filled with detailed graphs to help explain important quantitative trends, *Physical Properties of Macromolecules* teaches by example, ensuring comprehension of the subject as well as the methodology to implement theory, problem-solving techniques, and research results in practical situations. This resource serves as the ideal companion for government laboratories, industrial research scientists, engineers, and professionals in polymer science fields who are interested in fully grasping all aspects of physical polymer science.

ABOUT THE AUTHOR

**LARRY BELFIORE**, PhD, is a professor of chemical engineering in the department of chemical and biological engineering at Colorado State University. He has written seventy refereed journal publications, seven book chapters, thirty-four proceedings, and has presented more than one hundred lectures at national and international symposia. He is the author of *Transport Phenomena for Chemical Reactor Design*, published by Wiley.

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