



A Laboratory Manual of Polymers, 2/e

S.M. Ashraf, Sharif Ahmad & Ufana Riaz

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About the Book

A Laboratory Manual of Polymers provides meaningful, easy-to-do laboratory activities that will help students in understanding the basic principles of polymer synthesis, structure and functions. It is intended to enable the students prepare a variety of common polymers to investigate their properties as well as to discover their uses and applications. This book is intended to be used as a laboratory manual at the graduate and postgraduate levels in Materials Science as well as any polymer chemistry course.

Salient Features

Different kinds of polymerization reactions as well as their kinetic aspects.
Detailed spectral, thermal and morphological characterization of polymers.
Identification of polymers with FT-IR, ¹H-NMR, ¹³C-NMR spectroscopies.
Thermal characterization of polymers through DSC and TGA techniques.
Structural characterization with XRD.
Purification procedures of monomers and solvents.
26 experiments and general analytical techniques to characterize common polymers.
The book will be useful to professionals in the production as well as R&D units of polymer industries.

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