POLYMER SCIENCE AND TECHNOLOGY
Volume 20

POLYMER ALLOYS III

Blends, Blocks, Grafts, and
Interpenetrating Networks

POLYMER SCIENCE AND TECHNOLOGY

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Interpenetrating Networks

Edited by

Daniel Klempner
and Kurt C. Frisch

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Detroit, Michigan*

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PREFACE

On this, the dawning of a new age in high technology, man is seeking answers to increasingly complex problems. We are routinely launching reusable vehicles into space, designing and building computers with seemingly limitless powers, and developing sophisticated communications systems using laser technology, fiber optics, holography, etc., all of which require new and advanced materials. Polymer alloys continue to provide new solutions to the materials problems, and remain an area of ever increasing research.

Polymer alloys are multicomponent macromolecular systems. The components may be all on the same chain (as in block copolymers), on side chains (as in graft copolymers), or in different molecules (as in polyblends and interpenetrating polymer networks). The variety of morphologies possible and the synergistic effects on ultimate properties continue to stimulate research on new polymer alloys. More and more studies on synthesis of new alloys, the kinetics and mechanisms of their formation, and their characterization, are taking place, as well as studies on their processing and applications.

This book presents the proceedings of the Symposium on Polymer Alloys, sponsored by the American Chemical Society's Division of Organic Coatings and Plastics Chemistry held at the 182nd meeting of the American Chemical Society in New York, in August, 1981. The most recent efforts of scientists and engineers from all over the world in this increasingly important field are presented in the following pages.

We wish to express our appreciation to the authors who contributed to this book, as well as to the University of Detroit for their encouragement.

Daniel Klempner

Kurt C. Frisch

Polymer Institute

University of Detroit

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