

Contents

| | |
|--|------|
| <i>List of Contributors</i> | ix |
| <i>Preface</i> | xiii |
| Properties of Organotin Polyesters Crosslinked by Cycloaliphatic Epoxides | 1 |
| R.V. SUBRAMANIAN AND M. ANAND | |
| Synthesis and Characterization of Linear and Crosslinked AB-Type Polyurethanes | 21 |
| JAMES F. KINSTLE AND L. ERIC SEPULVEDA | |
| Controllable Reactivity Epoxy Hardeners | 49 |
| MARK MARKOVITZ | |
| Functionalization of Crosslinked Polystyrene Resins by Chemical Modification: A Review | 59 |
| JEAN M.J. FRÉCHET AND M. JEAN FARRALL | |
| Effects of Tetraamine Crosslinking Agents on the Thermo-mechanical Properties of PMR Polyimide Composites | 85 |
| PETER DELVIGS | |
| Thermooxidation of Methylene Bridging Groups in Polyimides | 97 |
| ROBERT A. JEWELL AND GEORGE F. SYKES | |
| Acetylene Terminated Phenylquinoxaline Oligomers | 107 |
| P.M. HERGENROTHER | |
| Synthesis and Thermal Crosslinking of <i>p</i>-Tolyl Containing Polyquinoxalines | 125 |
| STANLEY E. WENTWORTH | |
| Thermosetting Plasticizers for High Temperature Quinoxaline Thermoplastics | 139 |
| ROBERT F. KOVAR, GERHARD F.L. EHLERS, AND FRED E. ARNOLD | |
| Thermosetting Arylether Maleimides | 151 |
| G.T. KWIATKOWSKI, G.L. BRODE, L.M. ROBESON, A.W. BEDWIN, P. VAN RIPER | |

| | |
|--|-----|
| Thermal Aging of Cured Ethylene/Vinyl Acetate and Ethylene/Vinyl Acetate and Ethylene/Vinyl Acetate/Vinyl Alcohol Elastomers R.M. SMITH, G.K. BAKER, AND C.H. SMITH | 175 |
| Ultraviolet (UV) Cure of Modified Starch Coatings and Adhesive Binders A.H. YOUNG, F. VERBANAC, AND T.F. PROTZMAN | 191 |
| Interpenetrating Polymer Networks H.L. FRISCH, K.C. FRISCH, AND D. KLEMPNER | 205 |
| Isomeric Graft Copolymers and Interpenetrating Networks. Current Status of Nomenclature Schemes L.H. SPERLING | 217 |
| Polyurethane-Polyacrylate Pseudo-Interpenetrating Networks D. KLEMPNER, H.K. YOON, K.C. FRISCH, AND H.L. FRISCH | 243 |
| Castor Oil Based Interpenetrating Polymer Networks. III. Characterization and Morphology G.M. YENWO, L.H. SPERLING, J.A. MANSON, AND A. CONDE | 257 |
| Graft Curing with a Modified Butyl Rubber F.P. BALDWIN AND I.J. GARDNER | 273 |
| A Review of the Relation Between the Physical Structure and Mechanical Response of Epoxies ROGER J. MORGAN AND JAMES E. O'NEAL | 289 |
| Boundary Layers in Thermosets JAMES L. RACICH AND JAMES A. KOUTSKY | 303 |
| Mechanical Behavior of Poly (2-Hydroxyethylmethacrylate)—Glass Bead Composites L. NICOLAIS, J. KOLARIK, AND J. JANACEK | 325 |
| Prediction of the Structure of Crosslinked Condensation Polymers H.E. MARSH, JR., S.Y. CHUNG, G.C. HSU, AND C.J. WALLACE | 341 |
| Characterization of Polymer Networks by Elasticity Measurements A.J. CHOMPFF | 375 |
| The Effect of Network Structure in the Equation of Rubber Elasticity. II. Further Results E.M. VALLES AND C.W. MACOSKO | 401 |
| Rubber Networks Containing Unattached Polymer Molecules OLE KRAMER AND JOHN D. FERRY | 411 |

| | |
|--|------------|
| A New Measure of Strain to Describe the Mechanical Response of Elastomer Networks | 431 |
| W.V. CHANG, R. BLOCK, AND N.W. TSCHOEGL | |
| Creep Behavior of Networks Undergoing Scission Reactions | 453 |
| WU-NAN HUANG AND J.J. AKLONIS | |
| Kinetics of the Crystallization of Crosslinked Poly(Vinyl Alcohol) Films by Slow Evaporation of Hydrogels | 469 |
| NIKOLAOS A. PEPPAS | |
| Theories of Stress-Induced Crystallization of Crosslinked Polymers | 481 |
| RICHARD J. GAYLORD | |
| Characterization of Thermosetting Epoxy Systems Using a Torsional Pendulum | 491 |
| J.K. GILLHAM, C.A. GLANDT, AND C.A. MCPHERSON | |
| Differential Scanning Calorimetry of Phenolic Resins | 521 |
| JAMES A. KOUTSKY AND ROBERT EBEWELE | |
| Photopolymerization of Multifunctional Acrylate and Methacrylate | 535 |
| JAMES E. MOORE | |
| Characterization of Anisotropic Motional Phenomena in Polymeric Materials with Multiple Pulse NMR | 547 |
| C.R. DYBOWSKI AND R.W. VAUGHAN | |
| Viscoelasticity of Swollen Networks as Probed by Light Intensity Fluctuation Spectroscopy | 559 |
| K.L. WUN | |
| <i>Subject Index</i> | 577 |