Preface
Theory of phantom networks - topology, structure, elasticity: New and open problems p. 1
Structural properties of randomly crosslinked polymer networks p. 13
The dynamics of tire tread compounds and their relationship to wet skid behavior p. 16
Relaxation in permanent networks p. 27
Do local motions influence rheological properties near the gelation threshold? p. 37
On the dynamics of moderately and lightly crosslinked polymer networks p. 43
A new approach to polymer networks including finite chain extensibility, topological constraints, and constraints of overall orientation p. 47
Formation of networks - a lattice model for kinetic growth processes p. 52
Gelation and 1,1-transition in three-dimensional condensation and chain polymerization p. 57
Effect of thermal history on amylose gelation p. 61
Rheological, potentiometric and $^{23}$Na NMR studies on pectin-calcium systems p. 66
The formation of semiinterpenetrating polymer networks by photoinduced polymerization p. 70
Observation of the curing process of epoxy resins by inverse gas chromatography p. 78
Fluorescence probe studies during the curing of epoxy systems p. 83
Conditions of formation and equilibrium swelling of polymer networks formed by protein macromolecules p. 88
Cross-link fluctuations: NMR properties and rubber elasticity p. 90
Segmental orientation in filled networks p. 97
Field-cycling NMR relaxation spectroscopy of molten linear and cross-linked polymers. Observation of a [actual symbol not reproducible] law for semi-global chain fluctuations p. 104
Segmental orientation of "long" and "short" chains in strained bimodal PDMS networks: A $^{2}$H-NMR study p. 111
Small chains in a deformed network. A probe of heterogeneous deformation? p. 115
Aggregation of free chains within a deformed network: A SANS study p. 131
Trapped entanglements in polymer networks and their influence on the stress-strain behavior up to large extensions p. 137
Physical and chemical network effects in polyurethane elastomers p. 144
Influence of the thermodynamical quality of the solvent on the properties of polydimethylsiloxane networks in swollen and dry states p. 151
Triblock copolymers mesogels and deformation behavior in poor solvents p. 156
Microemulsion mediated polymer networks p. 165
Theory of the mechanical and swelling properties of elastomers with chemical and physical networks p. 174
The effect of free branches on the collapse of polyelectrolyte networks p. 177
Local order and statistics of a polymer chain in an external field p. 182
Charge photogeneration in carbazole-containing compounds and valency bands of oligomers p. 186
The peculiarities and nature of large-scale motion of highly crosslinked polymers p. 194
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTIR spectroscopy studies on epoxy networks</td>
<td>202</td>
</tr>
<tr>
<td>Influence of imidazole on the structure of epoxy amine networks</td>
<td>206</td>
</tr>
<tr>
<td>Epoxy polymer networks: Relaxation processes and crack resistance</td>
<td>209</td>
</tr>
<tr>
<td>Fluorescence study of interpenetrating network morphology of polymer films</td>
<td>214</td>
</tr>
<tr>
<td>Kinetic regularities of polymer network thermal degradation</td>
<td>222</td>
</tr>
<tr>
<td>Interpenetrating polymer networks based on EVA copolymer and PMMA</td>
<td>227</td>
</tr>
<tr>
<td>Fast segmental dynamics in poly(methyl methacrylate)-polyurethane interpenetrating networks</td>
<td>232</td>
</tr>
<tr>
<td>Thermally and mechanically activated degradation of polyesterurethane networks.</td>
<td>235</td>
</tr>
<tr>
<td>Analysis of molecular weight distribution functions</td>
<td></td>
</tr>
<tr>
<td>The solidification of bulk and solution cast segmented polyurethanes</td>
<td>241</td>
</tr>
<tr>
<td>Author Index</td>
<td>247</td>
</tr>
<tr>
<td>Subject Index</td>
<td>248</td>
</tr>
</tbody>
</table>

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.