

# Chapter Listings

Chapter	Title	Author(s)	Page
1	Environmental Effects on Polymers	R. E. Fornes and R. D. Gilbert	1
2	Biomedical Applications of Synthetic Polysaccharides	C. Schuerch	9
3	Kinetics of Hydrolysis and Thermal Degradation of Polyester Melts	K. S. Seo and J. D. Cloyd	17
4	Solvent Absorption in Free-Standing Polyimide Films	W. J. Pawlowski and M. I. Jacobson	29
5	Anisotropic Deformation and Crystallization in Polymer Melts (With Reference to Fiber Formation)	U.S. Agarwal, P. Asher, W. W. Carr, F. Pinaud, P. Desai and A. S. Abhiraman	43
6	Surface Modification of Ultra High Strength Polyethylene Fibers Through Allylamine Plasma Polymer Deposition for Improved Interfacial Strength	A. N. Netravali and Z. -F. Li	67
7	Statistics for the Short-Term Strength and Creep Rupture of <i>p</i> -Aramid Fibers	P. Schwartz	77
8	Thermal Properties of Nylon 6/ Poly(ethylene-co-acrylic acid) Blends	K. J. Yoon, R. E. Fornes and R. D. Gilbert	83
9	A Study of the Molecular Motions in Poly(ethylene terephthalate) Films by the ESR Spin Probe Technique	J. G. Doolan	115

10	Parametric Dependence of $^{13}\text{C}$ Solid State MAS NMR Splitting Due to Dipolar Interaction with a $^{14}\text{N}$ Nucleus	J. D. Memory	129
11	Solid State $^{13}\text{C}$ CP/MAS-NMR Study of an A/B Block Copolymer of Polystyrene (PS) and Poly(methyl Methacrylate) (PMMA)	S. S. Sankar, E. O. Stejskal, R. E. Fornes, W. W. Fleming, T. P. Russell and C. G. Wade	133
12	Effect of Temperature, Solvent and Substitution on the Cholesteric Pitch of (Ethyl)Cellulose Mesophases	D. R. Budgell and D. G. Gray	145
13	Mechanistic Considerations for Homogeneous Reactions of Cellulose in $\text{LiCl}/\text{N,N}$ -Dimethylacetamide	T. R. Dawsey	157
14	Cellulose Graft Copolymers	V. T. Stannett	177
15	A Novel Synthesis of Mesogenic N-Methyl Polyurethanes, and Demonstration of the Effect of Hydrogen Bonding on Polyurethane Liquid Crystalline Properties	F. Papadimitrakopolous, S. W. Kantor and W. J. MacKnight	189
16	Synthesis and Aggregation Properties of Ionic Amphiphilic Side Chain Siloxane Polymers	D. R. Zint and P. K. Kilpatrick	215
17	Perceivable Heat Resistant Resins Based on Novel Monomers Containing o-Phenylene Rings	J. Preston, J. W. Trexler, Jr. and Y. Tropsha	233
18	Latex Blends as Models of Rubber-Toughened Plastics: Poly(methyl Methacrylate)	M. Morton and F. Grant	245

19	Residual Porosity in Polymeric Latex Films	C. M. Balik	253
20	A Simple Method for Latex Agglomeration and Concentration	C. G. Force	269
21	The Use of Water-Soluble Polyacrylamides in Enhanced Oil Recovery Operations	S. H. Harris	275
22	Outdoor Weathering of Polystyrene Foam	J. E. Pegram and A. L. Andradý	287
23	Liquid Buffer Systems in Textile Dyeing	F. Yang and E. de Gusman	299
24	Frictional Behavior of Fibrous Materials	B. S. Gupta	305
25	Fluid Flow Through Needle Punched Geotextile Fabrics	V. Chahal, D. R. Buchanan and M. H. Mohamed	333
26	Delignification of Hardwoods During Alkaline Pulping: Reactions, Mechanisms and Characteristics of Dissolved Lignins During Soda-Aqueous Pulping of Poplar	A. D. Venica, C. -L. Chen and J. S. Gratzl	359
27	The Evolution of EPM/EPDM Catalyst Systems During R. D. Gilbert's Professional Career	E. K. Easterbrook and E. G. Kontos	375