CONTENTS

PLENARY LECTURES

1.	New Syntheses of Functional and Sequential Polymers by Exploiting Knowledge of the	
	Mechanism of Initiation	3
2.	Catalysis by Water-Soluble Imidazole-Containing Polymers	13
3.	Initiation Reactions with Activated Monomer and /or Nucleophile in Ionic Polymerizations	23
4.	Muonium as a Hydrogen-like Probe to Study Monomer Initiation Kinetics	35
	COLLOID AND SURFACE CHEMISTRY	
5.	Electron-Transfer Behavior of the Metal Complexes Attached to Polymer Matrices	49
6.	Esterolytic Reactions of Active Esters Using Heterogeneous Polymeric Catalysts	
	Containing Imidazole Groups	65
7.	Catalytic Effects of Micellar Poly(3-alkyl-1-vinylimidazolium) Salts on the Hydrolysis	
	of Phenyl Esters	75
8.	Epitaxial Polymerization as a Tool for Molecular Engineering	89
	ORGANIC COATINGS AND PLATICS CHEMISTRY	
9.	Friedel-Crafts Initiators in the Cationic Polymerization of para Substituted	
	α - Methylstyrenes	103
10.	Ring Opening Polymerization: Make the Initiator Work for You	115
11.	Initiation Considerations and Kinetics of Formation of Poly(2-methyl-1-pentene sulfone)	125
12.	Rational Design of Catalysts with Interacting Supports	137
13.	An Overview of the Polymerization of Cyclosiloxanes	145
14.	Cationic Photoinitiation Efficiency	173
15.	The Influence of Hydroxyls on the Cr/Silica Polymerization Catalyst	191
	CELLULOSE, PAPER, AND TEXTILE CHEMISTRY	
16.	Novel Additives for Enhancing UV and Radiation Grafting of Monomers to Polymers and	
	Use of These Copolymers as Ion Exchange Resins	209
17.	Initiation of Polymerizations Involving Polysaccharides and Radio Frequency Cold Plasmas	225
18.	Thermal Decomposition of Cotton Modified by Grafting with Acrylamide and	
	Bis(β-chloroethyl) vinylphosphonate	237
19.	Photo-Induced Grafting of Monomers on Prewetted Fiber Substrates	249
20.	Mechanochemically Initiated Copolymerization Reactions in Cotton Cellulose	259

RUBBER CHEMISTRY

21.	Factors Affecting the Isomeric Chain Unit Structure in Organolithium Polymerization of	
	Butadiene and Isoprene	283
22.	Viscosity and Aggregation of Alkyllithium Initiated Polymers	291
23.	The Nature of Stereochemical Control in Metal-Catalyzed Butadiene Polymerization	307
24.	Catalytic Control of Architecture and Properties of Butadiene Block Copolymers	323
25.	Synthesis of Block Sequences by Radical Polymerization	337
26.	Initiator-Accelerator Systems for Dental Resins	359
27.	Synthesis of Biodegradable Polymers for Biomedical Utilization	373
28.	Radiation-Induced Polymerization Reactions for Biomedical Applications	393
POLYMER CHEMISTRY		
29.	Mechanisms of Electron-Transfer Initiation of Polymerization: A Quantitative Study	419
30.	Initiation of Polymerization with High-Energy Radiation	435
31.	Temperature and Dilution Effects in Polymerization Induced by Peroxides Undergoing	
	Rapid Decomposition ($t_{1/2} < 60$ Minutes)	449
32.	Homogeneous Lanthanide Complexes as Polymerization and Oligomerization Catalysts:	
	Mechanistic Studies	459
Inde	Index	