668.423 EUR

CONTENTS

Recent development in high-temperature organic polymers	1
SESION I - LINEAR POLYMERS: CHEMISTRY AND PHYSICO-CHEMISTRY	
Synthesis and characterization of various esters of the oxydianiline / pyromellitic dianhydride	
Polyamic acid	19
Synthesis and characterization of semi-flexible thermotropic poly(ester-imides)s	35
Chemistry and preparation of PMDA/ODA based poly(amic acid) derivatives	45
Structure formation in polymer solutions based on the blends of aromatic polyamides and	
polyamide acids	51
Reaction of polyimides preparation from acid diesters of benzophenonetetracarboxylic acid and	
diamines	61
Polyimides on the base of 3,3' -diamino-4,4' bis (dimethylamino)-benzophenone	71
Synthesis and properties of branched maleimides	77
Imide-aryl ether ketoen block copolymers	83
Synthesis of aromatic polyimides and polyamide-imides from N,N' -bis (trimethylsilyl) -	
substituted aromatic diamines by the silulation method	93
Specific peculiarities of cyclization of alicyclic poly (amic acid) in solutions in the presence of	
phosphorous oxide	101
Alicyclic polyamidoimides	107
Reductive polyheterocyclization: a approach to the synthesis of polybenzazoles	117
New bis(naphthalic anhydrides) and polyheteroarylenes on their base	125
Functional and modified cardo polyimides	133
Synthesis of polyphenlquinoxalines (PPQ) with elevated glass transition temperatures	143
High temperature thermoplastic polycondensates for composite material matrices	151
XPS study on heat deteriorative behavior of polyimide film	165
Molecular properties of polyetherimide in solution	173
IR studies of intermolecular interaction in the copolymers with the aromatic polyimide-	
Benzimidazole (PIBI) base	179
Thermal behavior and stabilization of polyimides and related polymers	183
A temperature structural prehistory of polyimide and its realization during the study of relaxation	
properties of the films in the process thermal scanning	189
2,2-Bis [4- (3-aminophenoxy)phenyl] propane based polyimides characterized by improved	
processibility 199	
High-strength, high-modulus polynaphtoyleneimidobenzimidazole film "IPLON"	207

SESSION II - THERMOSETTING POLYMERS: CHEMISTRY AND PHYSICO-CHEM	ISTRY
Thermosetting polyimides from bismaleimides via Diels-Alder reaction	215
Synthesis and curing of bismaleamic acids derived from B,B' –dichloroterephthalyl dimalonitrile	233
IP 960, a french resin to compete with PMR 15. Control of polymolecularity and study of basic	
polymerization mechanism	239
Reactivity of cyanate-ester resins and characterization of polycyanurate networks	245
Synthesis and characterization of polyimides for high temperature applications	265
A comparative study of the thermal behavior of some aryl bis-maleimides and bis-citraconimides	283
Thermally stable polyamides that utilize a cross linking reaction of biphenlene and acetylene	293
Infrared studies of the cure of PMR-15	301
Some chemical and physical aspects of the cure of polynadimides of the IP 960pe	309
Polyimide-modified epoxy resin for thermosetting matrix applications: Time-Temperature-	
Transformation (TTT) cure diagrams, thermal and mechanical properties determination	319
New thermally stable addition polyamideimide oligomers, processing and adhesive properties	331
Semi I.P.Ns with a nadimide end-capped benzhydrol imide and fully cyclised polyimides:	
thermomehancial and fracture toughness properties	341
Rubber-modified bismaleimides. Influence of polysiloxane rubber on the polymerization and	
phase separation process, and on the generated morphologies	347
SESSION III - NEW MATERIALS FOR ELECTRONICS	
Heat resistant polymers for electronics applications	363
New strategies for microelectronic interconnections with high performance polymers	387

New strategies for interoelectionic interconnections with high performance polymers	307
Ultra-violet laser photoablation of thermostable polymers: polyimides, polyphenylquinoxaline	
and Teflon AF	395
Study of physicochemical stability of the copper/polyphenylquinoxaline interfaces	407
Properties of polyphenylquinoxaline surfaces	421
Force microscopy of clean and gold covered polyimide films	427
Soluble polyimides with specific dielectric bahaviour	437
Effects of morphology on dielectric properties of poly (p-phenylene sulphide)	447
Dielectric materials from polyimides based on dianhydrides of alicyclic structure and different	
diamines	455
Photosensitive polyimides	461
Kinetic studies of photosensitive polyimides by differential photocalorimetry (DPC)	471
Investigation of photoresistive polyimide composition	493

SESSION IV - MEMBRANES

High temperature polymer membranes for gas separation	497
Characterization of polyimides in solution. Relation with the preparation of asymmetric	
membranes	507
Gas permeability through composite membranes based on polyamideimide	517
Soluble ethermide-oligodimethylsiloxane copolymers: kinetic, mechanical and gas separation	
properties	525
Heteropolysiloxanes derived membranes. Potential for liquid and gas separation	537
Ion exchanging thermostable polymers immobilized on mineral carriers	545
Author Index	549