

CONTENTS

Coupling of DSC and Dynamic Mechanical Experiments for Probing Processing-Structure-Property Relationships of Catalyst Modified High Performance Epoxy Matrices.....	1
Thomas E. Munns and James C. Seferis	
On the Glass Transition of Polyacrylamide.....	13
H. K. Yuen, E. P. Tam and J. W. Bullock	
The Binary Blends, Transreaction and Copolymers of Bisphenol-A Polycarbonate and a Polyarylate.....	25
Masao Kimura and Roger S. Porter	
Curie Temperatures of the ICTA Certified Reference Materials.....	33
Paul D. Garn and Ali-Asghar Alamolhoda	
Thermal Analysis of Acrylamide-Based Polymers.....	43
J. J. Maurer, D. N. Schulz, D. B. Siano, and J. Bock	
Defining B-Stage and Total Cure for a Dicy Based Epoxy Resin by DSC.....	57
Bernd K. Appelt and Pamela J. Cook	
Differential Scanning Calorimetry: Simultaneous Temperature and Calorimetric Calibration.....	67
W. Eysel and K.-H. Breuer	
Dynamic Mechanical Analysis Application to Dynamic Thermo-mechanometry.....	81
Takayuki Murayama	
Applications of Differential Rheometry.....	95
P. H. Foss and M. T. Shaw	
Materials Characterization Using Thermogravimetry Coupled to Triple Quadrupole Tandem Mass Spectrometry (MS/MS).....	105
Bori Shushan, Bill Davidson, and R. Bruce Prime	

Calorimetric Response of Fossil Fuel Systems: Prospects and Problems.....	113
Krishnan Rajeshwar	
Multiple Sample Differential Scanning Calorimetry	133
Robert C. Johnson and Valdis Ivansons	
Quantitative Evaluation of the Gibbs-DiMarzio Theory of the Glass Transition for Polystyrene.....	143
A. R. Greenberg and R. P. Kusy	
Study on Adhesives Performance by Dynamic Mechanical Techniques.....	155
Lecon Woo	
Effect of Molecular Structure of Mesomorphism. 15 ¹ . Thermal and X-ray Diffraction Analysis of a "Siamese Twin" Series: The 4,4'-Dicarboxy- α,ω -Diphenoxyalkanes.....	169
Anselm C. Griffin, Sharon Gorman, and William E. Hughes	
Reversibility and Capacity of Different Energy Storage Reactions by Calorimetry.....	179
Pierre Le Parlouër	
Power Scanning Calorimetry (PSC).....	191
Joeseph Hakl	
A Combined TG-GC-MS System for Materials Characterization ...	197
Jen Chiu	
A New Approach for Determining Mechanical Properties of Thermoset Resins.....	209
Charles Gramelt	
The Melting Temperature of Polymers: Theoretical and Experimental.....	223
L. Mandelkern, G. M. Stack and P. J. M. Mathieu	
Nonequilibrium Thermodynamics and Modern Dynamic Thermal Analysis Techniques.....	239
Paul H. Lindenmeyer and Genia Paul	
Integral-Differential Relationships in Thermal Analysis.....	255
John P. Elder	
The Characterization of Water in Treed Crosslinked Polyethylene Films.....	265
R. A. Weiss, S. H. Shaw, and M. T. Shaw	

Application of Combined Thermogravimetry Atmospheric Pressure Chemical Ionization Mass Spectrometry to Copolymer Analysis.....	277
Susan M. Dyszel	
Semi-Automated Measurement of Composites Flexural Stress Relaxation.....	293
P. S. Gill and J. D. Lear	
Some Uses of Differential Scanning Calorimetry in Biomem- brane Research.....	307
Donald L. Melchior	
The Effect of Sample Temperature Gradients on DSC Thermograms at the Glass Transition Temperature.....	325
Edward Donoghue, Thomas S. Ellis, and Frank E. Karasz	
Characterization of Coal Liquefaction Residues by Thermal Methods of Analysis.....	343
Charles M. Earnest	
Computer Automation of the Dynamic Mechanical Analyzer and its Application to Cure Kinetics Studies and Dynamic Mechanical Property Analysis of Organic Coatings.....	361
M. E. Koehler, A. F. Kah, C. M. Neag, T. F. Niemann, F. B. Malihi and T. Provder	
Cure Reaction Kinetics Characterization of Some Model Organic Coatings Systems by FT-IR and Thermal Mechanical Analysis.....	377
T. Provder, C. M. Neag, G. Carlson, C. Kuo and R. M. Holsworth	
Contributors	395
Index	401