

Table of Contents

Preface

Effect of Fiber Treatment on Fiber Strength and Fiber/Matrix Interface of Hemp Reinforced Polypropylene Composites S. Bouzouita, M. Salvia, H. Ben Daly, A. Dogui and E. Forest	1
A Study of Mechanisms of Poly (PhenyleneSulfide) Thermal Degradation in Air C. Gros, J. Tarrieu, V. Nassiet and E. Dutarde	9
Chemical Structure Influence of Silicone Adhesives on Curing Process V. Nassiet, C. Gros, M. Charlas and J. Habas	19
Dispersion Improvement of Carbon Nanotubes in Epoxy Resin Using Amphiphilic Block Copolymers A. Courbaron Gilbert, N. El Bounia, E. Péré, L. Billon and C. Derail	29
Study of DGEBA and Novolac Adhesive Solutions between Ceramic and Steel Substrates C. Gaussens, V. Nassiet and B. Hassoune-Rhabbour	37
Shear Test on CFRP Full-Field Measurement and Finite Element Analysis S. Mistou, M. Fazzini and M. Karama	49
Thermo-Mechanical Behaviour of the Raffinate Resulting from the Aqueous Extraction of Sunflower whole Plant in Twin-Screw Extruder: Manufacturing of Biodegradable Agromaterials by Thermo-Pressing P. Evon, V. VanDenBossche, P. Pontalier and L. RIGAL	63
Failure Mechanisms of Thin Hard Coatings Submitted to Repeated Impacts: Influence of the Film Thickness S. Iamri, C. Langlade and G. Kermouche	73
Identification of the Sn96.5Ag3.5 Law Behavior with the Scatter of the Parameters - Study of Aeronautical Application in Power Module A. Micol, A. Zéanh, O. Dalverny and M. Karama	83
Numerical Modeling of Chemical and Thermal Coupling in a Silicon Carbide Based Heat Exchanger Reactor B. Boniface, S. Caperaa and O. Dalverny	93
Digital Image Stereo-Correlation Applied to the Identification of Elastomers M. Fazzini, S. Mistou, M. Karama and B. Desmars	103
Lifetime and Reliability Assessment of AlN Substrates Used in Harsh Aeronautic Environments Power Switch Modules A. Zéanh, O. Dalverny, M. Karama and A. Bouzourene	113
Prediction of Lifetime in Static Fatigue at High Temperatures for Ceramic Matrix Composites O. Loseille and J. Lamon	129
An On-Line ANN-Based Approach for Quality Estimation in Resistance Spot Welding A. El Ouafi, R. Bélanger and J. Méthot	141
Stability Prediction in Turning of Flexible Components G. Urbicain, D. Olvera, L.N. López de Lacalle and F.J. Campa	149
Geometric and Kinematic Modelling of a New Parallel Kinematic Machine Tool: The Tripteor X7 Designed by PCI S. Pateloup, H. Chanal and E. Duc	159
Links Between Machining Parameters and Surface Integrity in Drilling Ni-Superalloy V. Dutilh, G. Dessein, J. Alexis and G. Perrin	171
Control of Chatter by Spindle Speed Variation in High-Speed Milling S. Seguy, G. Dessein, L. Arnaud and T. Insperger	179