LIST OF CONTENTS

Section I : Structure related studies

Section II: Surface treatments and composites interlayers

14) Comyn J., Mascia L., Xiao G. and Parker B.M., Plasma Treatment of Polyetheretherketone for Adhesive Bonding, *International Journal of Ahesion and Adhesives, 16, (1996), 97-104.*

15) Comyn J., Mascia L., Xiao G. and Parker B.M., Corona-Discharge Treatment of Polyetheretherketone (PEEK) for Adhesive Bonding, *International Journal of Ahesionand Adhesives, 16, (1996), 301-304.*

16) Mascia L. and Kinsella M., Thermoplastics Composites with ductile fibre coatings based on UHMWPE: A study on short fibre GR Nylon 6, *Polymer Composites, 14(2), (1993), 94-100.*

17) Mascia L, Dhillon J. and Harper J.F., Adhesion Enhancement of Rubbery and Ductile Polyolefin Coatings on Glass Fibres for Epoxy Composites and Effects on Failure Mechanism, *J. Appl. Polym. Sci., 47, (1993), 487-498.*

18) Mascia L., Dhillon J. and Harper J.F., The influence of Fibre/Matrix interlayers based on functionalised EPDM and UHMWPE on the Mechanical Properties of Glass Fibre / Epoxy Composites. Plastics, *Rubbers and Composites: Processing & Applications, 19 (1993), 221-226.*

19) Mascia L. and Zhang J., Matrix/Size Interactions in Epoxy Glass/Fibers Composites in Relation to Mechanical Relaxations and Effects of Thermal Ageing, *Journal of Applied Polymer Science, 55, (1995), 1771-1777.*

20) Mascia L and Zhang J., Mechanical Properties and Thermal Ageing of a Perfluoroligomer Modified Epoxy Resin in Castings and Glass Fibres Composites, *Composites, 26(5), (1995), 379-385.*

21) Nassehi V., Kinsella M. and Mascia L., Finite Element Modelling of the stress distribution in Polymer Composites with coated fibre interlayers, *Journal of Composite Materials, 27(2), (1993), 195-214*

22) Nassehi V., Dhillon J. and Mascia L., Finite Element Simulation of the Micromechanics of interlayered Polymer/Fibre Composites: A study of interactions between reinforcing phases, *Composites Science and Technology, 47 (1993), 340-358.*

Section III: Solid state processing

23) Mascia L. and Zhao J., Extrusion of Polymers in the Plastic State through Pure-Shear Convergent-Divergent Dies, *Advances in Polymer Technology, 10, (1990), 87-99.*

24) Mascia L. and Zhao J., Biaxial Orientation of Polymers by Solid-State Extrusion through Convergent-Divergent Dies, *Rheologica Acta, 30, (1991), 369-387.*

25) Zhao J. and Mascia L., Orientation Evolution in the Solid State Extrusion of Crystalline Polymers through Convergent Divergent Dies, *International Polymer Processing, 9(1), (1994), 60-66.*

26) Mascia L. and Zhao J., Transverse Orientation Dies for Solid-State Extrusion of Polymers, Part 1 : Process Mechanics, *Polymer Eng. Sci., 31, (1991), 667-676.*

27) Mascia L. and Zhao J., Transverse Orientation Dies for Solid-State Extrusion of Polymers, Part 2: Orientation and Properties of Extrudates, *Polymer Eng. Sci., 31, (1991), 677-693.*

28) Mascia L. and Fekkai Z., Influence of stress induced crystallisation on the dimension stability of monoaxially drawn poly(ethylene terephthalate), *Polymer, 34 (7), (1993), 1418-1422.*

29) Mascia L., Fekkai Z., Guerra G., Parravicini L. and Auremmia F., Effects of Distorsional Components in Biaxially Stretching of Poly(ethylene terephthalate) sheets on dimension stability and structure, *Journal of Materials Science, 29, (1994), 3151-3160.*