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Biodegradation ""; ""DURABILITY AND BIODEGRADABILITY OF SYNTHETIC POLYMER ""; ""PRINCIPAL CONTRIBUTION OF N-BENZYL-4-VINYLPYRIDINIUM CHLORIDE TO BIODEGRADATION OF THE MODIFIED POLYSTYRENE ""; ""Extraordinarily Strong Biodegradability "" ""Powerful Stimulation of Microbes to Degrade the Connected Portion """"Highly Nutritive Worth for Microbes in Charges of Biodegradation ""; ""Proliferation of Bacteria on the Surface of Cross-Linked PBVP(Br) ""; ""Violent Digestion of Cross-Linked PBVP(Br) by Activated Sludge ""; ""Strong Bactericidal Activity of Not-Cross-Linked PBVP(Br) ""; ""Strong Affinity with Microbial Cells That Increases Opportunity of Biodegradation ""; ""Capture of Bacterial Cells by Adhesion on the Surface of Cross-Linked PBVP(Br) ""; ""Influence of Chemical Structure on the Ability to Capture Bacterial Cells "" ""Influence of Electrostatic and Hydrophobic Interactions on the Capture of Bacterial Cells """"Strong Hydrophilicity That Assists Biodegradation ""; ""EXPERIMENTAL METHODS ""; ""Materials ""; ""Preparation of Copolymers of Styrene with N-Benzyl-4-Vinylpyridinium Chloride ""; ""Degradation of the Modified Polystyrene by the Treatment with Activated Sludge in Soil ""; ""DEGRADATION OF THE MODIFIED POLYSTYRENE DURING TREATMENT WITH ACTIVATED SLUDGE IN SOIL ""; ""Biodegradation of PSt-co-BVP(Cl) In Molar Ratio 1:1 ""; ""Biodegradation of PSt-co-BVP(Cl) in Molar Ratio 2:1 ""; ""Biodegradation of PSt-co-BVP(Cl) in Molar Ratio 3:1 ""

Sommario/riassunto

Polystyrene is a common thermoplastic polymer made from the aromatic monomer styrene with good formability. It is widely used in automotive, electrical and electronic connector systems. This book presents current research in the study of polystyrene, including polystyrene attrition during chemical engineering processes; the biodegradability of polystyrene; the role of adhesion mechanisms of particles on modified polypropylene; direct fluorination of polystyrene; the applications of polystyrene into various sensing platforms; electrospun polystyrene fibres and superhydrophobic surfaces and the synthesis of end-functionalised syndiotactic polystyrene.
