1. Record Nr. UNINA9910817701803321

Titolo	Polystyrene : properties, performance, and applications / / James E. Gray, editor
Pubbl/distr/stampa	Hauppauge, NY, : Nova Science Publishers, c2011
ISBN	1-61942-484-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (200 p.)
Collana	Materials science and technology
Altri autori (Persone)	GrayJames E <1960-> (James Ehren)
Disciplina	668.4/233
Soggetti	Polystyrene Thermoplastics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""POLYSTYRENE: PROPERTIES, PERFORMANCE AND APPLICATIONS ""; ""POLYSTYRENE: PROPERTIES, PERFORMANCE AND APPLICATIONS ""; ""CONTENTS ""; ""PREFACE ""; ""POLYSTYRENE TRIBOLOGICAL PERFORMANCE: PROGRESS IN THE UNDERSTANDING OF POLYMERS ATTRITION DURING CHEMICAL ENGINEERING PROCESSES ""; ""ABSTRACT ""; ""1. INTRODUCTION ""; ""2. EXPERIMENTAL METHODS ""; ""2.1. Description of Attrition Device ""; ""2.2. Specimen Preparation ""; ""2.3. Contact Angles Measurements and Surface Free Energy ""; ""2.4. Atomic Force Microscopy Examinations ""; ""2.5. Infrared Spectroscopy Measurements "" ""2.6. Differential Scanning Calorimetry Measurements """"2.7. Rheological Measurements ""; ""2.8. Gel-Permeation Chromatography (GPC) Measurements ""; ""3. RESULTS AND DISCUSSION ""; ""3.1. Discussion of Rubbing Results ""; ""3.2. Discussion of Attrition Results ""; ""Applied Normal Force Effect ""; ""Hemispheres Velocity Effect ""; ""Polymer Molecular Weight Effect ""; ""3.3. Discussion of Adhesion and Rubbing at the Nanometric Scale ""; ""CONCLUSION""; ""ACKNOWLEDGMENT""; ""REFERENCES "" ""BIODEGRADABILITY OF POLYSTYRENE THAT CONTAINS N-BENZYL-4-VINYLPYRIDINIUM CHLORIDE IN THE MAIN CHAIN """"ABSTRACT ""; ""INTRODUCTION ""; ""INDISPENSABLE QUALITY REQUIRED FOR BIODEGRADABLE POLYMER ""; ""Quality Required for Excellent Biodegradability""; ""Quality Required for Test Microbes in Charges of

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 ""