

1. Record Nr.	UNINA9910461279903321
Titolo	Polystyrene [[electronic resource]] : properties, performance, and applications // James E. Gray, editor
Pubbl/distr/stampa	Hauppauge, NY, : Nova Science Publishers, c2011
ISBN	1-61942-484-3
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 Electronic books.
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	<p>""POLYSTYRENE: PROPERTIES, PERFORMANCE AND APPLICATIONS "";</p> <p>""POLYSTYRENE: PROPERTIES, PERFORMANCE AND APPLICATIONS "";</p> <p>""CONTENTS ""; ""PREFACE ""; ""POLYSTYRENE TRIBOLOGICAL PERFORMANCE: PROGRESS IN THE UNDERSTANDING OF POLYMERS ATTRITION DURING CHEMICAL ENGINEERING PROCESSES "";</p> <p>""ABSTRACT ""; ""1. INTRODUCTION ""; ""2. EXPERIMENTAL METHODS "";</p> <p>""2.1. Description of Attrition Device ""; ""2.2. Specimen Preparation "";</p> <p>""2.3. Contact Angles Measurements and Surface Free Energy ""; ""2.4. Atomic Force Microscopy Examinations ""; ""2.5. Infrared Spectroscopy Measurements ""</p> <p>""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 "";</p> <p>""Polymer Molecular Weight Effect ""; ""3.3. Discussion of Adhesion and Rubbing at the Nanometric Scale ""; ""CONCLUSION"";</p> <p>""ACKNOWLEDGMENT""; ""REFERENCES ""</p> <p>""BIODEGRADABILITY OF POLYSTYRENE THAT CONTAINS N-BENZYL-4-VINYLPYRIDINIUM CHLORIDE IN THE MAIN CHAIN """"ABSTRACT "";</p> <p>""INTRODUCTION ""; ""INDISPENSABLE QUALITY REQUIRED FOR BIODEGRADABLE POLYMER ""; ""Quality Required for Excellent</p>

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"
