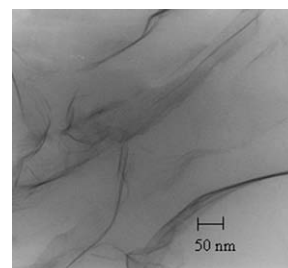




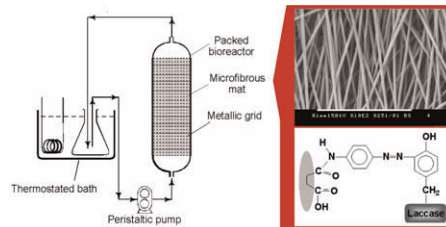
Graphical Abstracts/Eur Polym J 45 (2009) 2479–2485

MACROMOLECULAR NANOTECHNOLOGY
ARTICLES**Epoxy-nanocomposites containing exfoliated zirconium phosphate: Preparation via cationic photopolymerisation and physicochemical characterisation**R. Bongiovanni ^a, M. Casciola ^b, A. Di Gianni ^a, A. Donnadio ^b, G. Malucelli ^a^a Dipartimento di Scienza dei Materiali e Ingegneria Chimica, Politecnico di Torino c.Duca degli Abruzzi 24, 10129 Torino, Italy^b Dipartimento di Chimica, Università di Perugia, via Elce di Sotto 8, 06123 Perugia, Italy

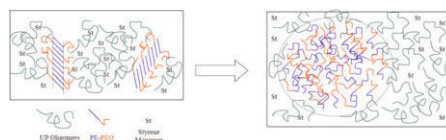
Eur Polym J 45 (2009) 2487

**Electrospun microfibrillar poly(styrene-*alt*-maleic anhydride)/poly(styrene-*co*-maleic anhydride) mats tailored for enzymatic remediation of waters polluted by endocrine disruptors**M. Ignatova ^a, O. Stoilova ^a, N. Manolova ^a, D.G. Mita ^{b,c,d}, N. Diano ^{b,c,d}, C. Nicolucci ^d, I. Rashkov ^a^a Laboratory of Bioactive Polymers, Institute of Polymers, Bulgarian Academy of Sciences, Acad. G. Bonchev Str. 103A, 1113 Sofia, Bulgaria^b Institute of Genetics and Biophysics of CNR, Via Pietro Castellino, 111-80131 Naples, Italy^c Department of Experimental Medicine, Second University of Naples, Via S. M. di Costantinopoli 16, 80138 Naples, Italy^d National Institute of Biosystems and Biostructures (INBB), Via le Medaglie d'Oro, 305, 00136 Rome, Italy

Eur Polym J 45 (2009) 2494

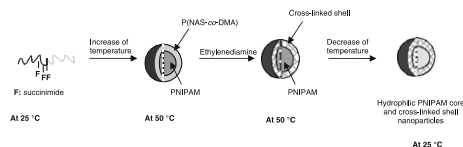
**Thermal induced mobility of self-assembled platelets of poly(ethylene-*block*-poly(ethylene oxide)) in liquid precursors of unsaturated polyester thermoset**Christophe Sinturel ^a, Marylène Vayer ^a, René Erre ^a, Heinz Amenitsch ^b^a Centre de Recherche sur la Matière Divisée, 1 B rue de la Férollerie, 45071 Orléans Cedex 2, France^b Institute of Biophysics and Nanosystems Research, Austrian Academy of Sciences, Schmiedlstr. 6, 8042 Graz, Austria

Eur Polym J 45 (2009) 2505



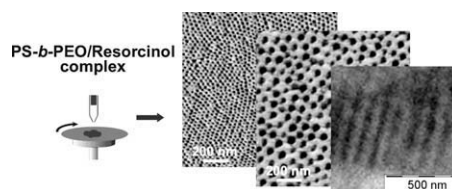
Shell-crosslinked nanoparticles through self-assembly of thermoresponsive block copolymers by RAFT polymerization

Eur Polym J 45 (2009) 2513

Sagrario Pascual ^a, Michael J. Monteiro ^b^a UCO2M-UMR CNRS6011, LCOM-Chimie des Polymères, Université du Maine, Avenue Olivier Messiaen, 72085 Le Mans Cedex 9, France^b Australian Institute of Bioengineering and Nanotechnology, The University of Queensland, Brisbane, Qld 4072, Australia

Control of morphology orientation in thin films of PS-*b*-PEO diblock copolymers and PS-*b*-PEO/resorcinol molecular complexes

Eur Polym J 45 (2009) 2520

Jennifer Tata ^a, Dominique Scalarone ^a, Massimo Lazzari ^{a,b}, Oscar Chiantore ^a^a NIS Centre of Excellence and Dipartimento di Chimica IFM, University of Torino, Via P. Giuria 7, 10125 Torino, Italy^b Dept. of Physical Chemistry, Faculty of Chemistry and Institute of Technological Investigations, University of Santiago de Compostela, 15782 Santiago de Compostela, Spain

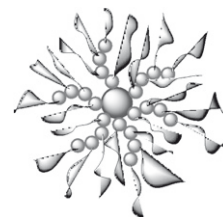
Synthesis of multi-arm-star polyglycidols of different architecture grafted with polyacrylate side arms

Eur Polym J 45 (2009) 2529

Christof Schmitz, Helmut Keul, Martin Möller

DWI an der RWTH Aachen e.V., Institute of Technical and Macromolecular Chemistry, RWTH Aachen, Pauwelsstr. 8, D-52056 Aachen, Germany

Multi-arm-star polyglycidols of different architecture grafted with polyacrylate side arms were obtained in a four step synthesis: (i) anionic ring-opening polymerisation of ethoxyethyl glycidyl ether; (ii) removal of the acetal protection group via acid catalysed hydrolysis; (iii) esterification of the hydroxyl groups of the polyglycidols with α -bromoisobutyryl bromide; and (iv) atom transfer radical polymerisation of *tert*-butyl acrylate and methyl acrylate using the multifunctional macroinitiators prepared before.



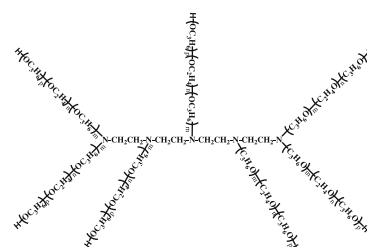
6-arm-star shaped poly(glycidol-graft-acrylate)

Aggregation behavior of block polyethers with branched structure at air/water surface

Eur Polym J 45 (2009) 2540

Houjian Gong, Guiying Xu, Hui Ding, Xiaofeng Shi, Yebang Tan

Key Laboratory of Colloid and Interface Chemistry, Ministry of Education, Shandong University, Jinan 250100, PR China



Morphology and mechanical response of S-B star block copolymer – Layered silicate nanocomposites

Martin Ganß ^a, Bhabani K. Satapathy ^a, Mahendra Thunga ^{a,b},
Ulrike Staudinger ^a, Roland Weidisch ^{a,b}, Dieter Jehnichen ^b, Jürgen Hempel ^a,
Markus Rettenmayr ^a, Alejandra Garcia-Marcos ^c, Hans H. Goertz ^c

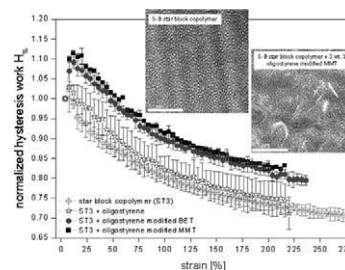
^a Institute of Materials Science and Technology (IMT), Friedrich-Schiller-University Jena, Lößdergraben 32, D-07743 Jena, Germany

^b Leibniz Institute of Polymer Research Dresden, Hohe Strasse 6, D-01069 Dresden, Germany

^c BASF AG, Polymer Research Thermoplastics, GKT/II-BI, D-67056, Ludwigshafen, Germany

The figure illustrates the substantial enhancement in mechanical hysteresis (elastic-plastic regime) as indicated by the increase in the hysteresis-work due to incorporation of oligostyrene modified layered silicates into S/B based star block copolymer matrix (ST3) via self-assembly induced nano-confinement effects.

Eur Polym J 45 (2009) 2549

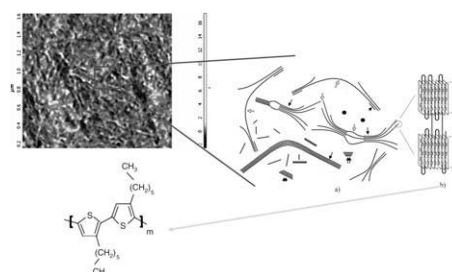


Structural investigation on bulk poly(3-hexylthiophene): Combined SAXS, WAXD, and AFM studies

Maurizio Canetti, Fabio Bertini, Guido Scavia, William Porzio

Istituto per lo Studio delle Macromolecole – C.N.R. Via E. Bassini 15, 20133 Milano, Italy

Eur Polym J 45 (2009) 2572



REGULAR ARTICLES

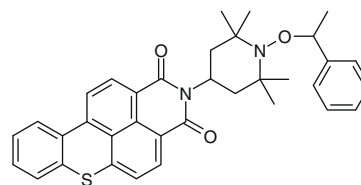
Nitroxide mediated styrene radical polymerization using a fluorescence marked mediator

Š. Chmela, L. Hrková

Polymer Institute, Slovak Academy of Sciences, Dúbravská cesta 9, 842 36 Bratislava, Slovakia

TEMPO derivative bearing fluorescence probe have been used as regulator for nitroxide mediated radical polymerization of styrene. Colored polystyrenes with very intensive fluorescence were received. Fluorescence as well as UV absorption was used to determine the nitroxyl-terminated polystyrene chains. Number of marked chains decreases as the conversion increases but the polydispersity is constant.

Eur Polym J 45 (2009) 2580



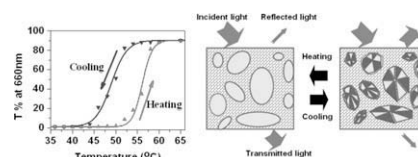
Thermo-optical study of UV cured polyether urethane diacrylate films with dispersed octadecanol

Liang-cheng Cao, Miao Mou, Gang Feng, Yue-chuan Wang

College of Polymer Science and Engineering, State Key Laboratory of Polymer Materials Engineering, Sichuan University, Chengdu 610065, PR China

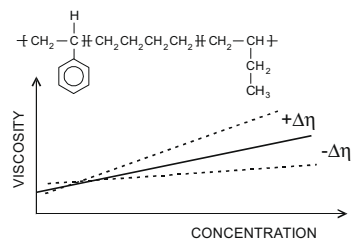
A novel thermo-optical material composed of polyether urethane diacrylate with dispersed octadecanol is prepared by UV curing method for applications as thermally reversible light scattering (TRLS) films and thermo-optical recording medium.

Eur Polym J 45 (2009) 2587



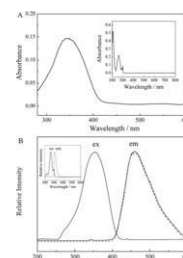
Eur Polym J 45 (2009) 2594

Faculty of Chemical Engineering and Technology, University of Zagreb, Marulićev trg 19,
P.O. Box 177, HR-10000 Zagreb, Croatia



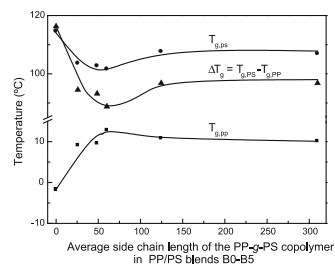
Eur Polym J 45 (2009) 2600

The UV-vis spectrum of dedoped PFAA film is broader with an obvious absorption at 350 nm. Fluorescence spectra of dedoped PFAA indicate the high photochemical stability. The excitation spectrum of PFAA locates at 300-400 nm and the emission spectrum mainly locates at 460 nm. These results indicate that PFAA is a good blue-light emitter.



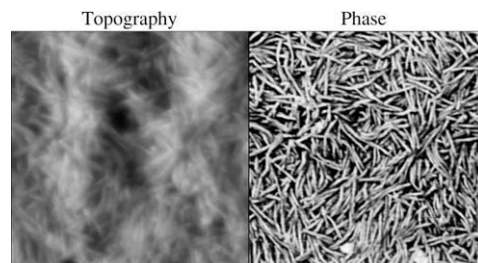
Eur Polym J 45 (2009) 2619

^c Research Institute of Beijing Yanshan Petrochemical Co., Ltd, Sinopec, Beijing 102500, China



Eur Polym J 45 (2009) 2629

^c Analytical Laboratory, Faculty of Chemistry, Maria Curie-Skłodowska University, Pl. Marii Curie-Skłodowskiej 3, 20-031 Lublin, Poland



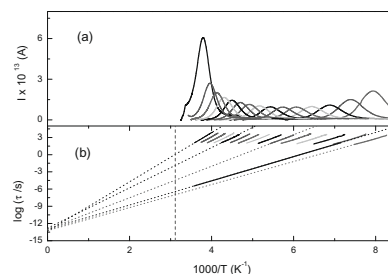
The slow molecular mobility in poly(vinyl acetate) revisited: New contributions from Thermally Stimulated Currents

Susana S. Pinto ^a, Joaquim J. Moura Ramos ^a, Hermínio P. Diogo ^b

^a CQFM – Centro de Química-Física Molecular and IN – Institute of Nanoscience and Nanotechnology, Instituto Superior Técnico, TULisbon, 1049-001 Lisboa, Portugal

^b Centro de Química Estrutural, Complexo I, IST, TULisbon, 1049-001 Lisboa, Portugal

Eur Polym J 45 (2009) 2644

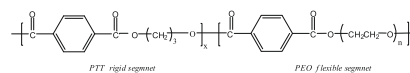


Structure and properties of new polyester elastomers composed of poly(trimethylene terephthalate) and poly(ethylene oxide)

Anna Szymczyk

Institute of Physics and Institute of Materials Science and Engineering, West Pomeranian University of Technology, Al. Piastów 17, 70-310 Szczecin, Poland

Eur Polym J 45 (2009) 2653



Curing kinetic study using a well-controlled multifunctional copolymer based on glycidyl methacrylate

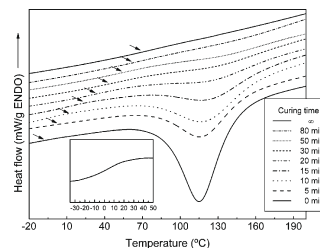
Pedro Francisco Cañamero ^a, José Luis de la Fuente ^a, Marta Fernández-García ^b

^a Instituto Nacional de Técnica Aeroespacial "Esteban Terradas", Ctra. de Ajalvir, Km 4, 28850 Torrejón de Ardoz, Madrid, Spain

^b Instituto de Ciencia y Tecnología de Polímeros (CSIC), Juan de la Cierva 3, 28006 Madrid, Spain

Curing kinetics analysis of a well-controlled and multifunctional glycidyl methacrylate-co-butyl acrylate statistical copolymer with a commercial linear diamine is described. Differential scanning calorimetry using isothermal and non-isothermal experiments is used to establish all the kinetics parameters. The characteristics of this novel resin are comparable with those of monofunctional epoxy resins.

Eur Polym J 45 (2009) 2665

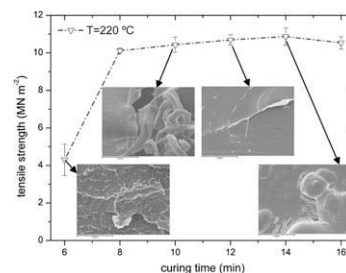


Optimization of the curing conditions of PVC plastisols based on the use of an epoxidized fatty acid ester plasticizer

O. Fenollar, D. García, L. Sánchez, J. López, R. Balart

Instituto de Tecnología de Materiales (ITM), Universidad Politécnica de Valencia (UPV), Plaza Ferrandiz y Carbonell s/n, 03801, Alcoy, Alicante, Spain

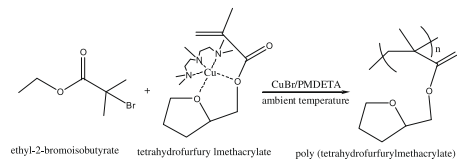
Eur Polym J 45 (2009) 2674



Ambient temperature Atom Transfer Radical copolymerization of tetrahydrofurfuryl methacrylate and methyl methacrylate: Reactivity ratio determination

Kannapiran Rajendrakumar, R. Dhamodharan

Department of Chemistry, Indian Institute of Technology Madras, Chennai 600 036, India

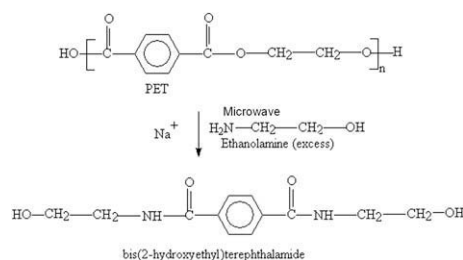


Eur Polym J 45 (2009) 2685

Microwave-assisted aminolytic depolymerization of PET waste

N.D. Pingale, S.R. Shukla

Department of Fibers and Textile Processing Technology, Institute of Chemical Technology (Deemed University), Matunga, Mumbai 400 019, India



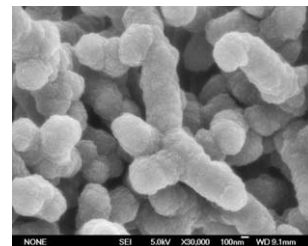
Eur Polym J 45 (2009) 2695

Electrochemical properties of polyaniline in *p*-toluene sulfonic acid solution

Guocheng Xu, Wei Wang, Xiaofei Qu, Yansheng Yin, Lei Chu, Benlin He, Huikang Wu, Jingrui Fang, Yusheng Bao, Liang Liang

Institute of Materials Science and Engineering, Ocean University of China, Songling Road 238, Qingdao 266100, Shandong Province, PR China

The PANI film on the SS electrode presents a porous microstructure and the porous microstructure would make the electrode having more available active sites for faradic reaction and be propitious to charge-transfer, thus leading to a lower resistance for ion binding with the polymer.



Eur Polym J 45 (2009) 2701

A chemiluminescence study on thermal and photostability of ethylene/ α -olefin copolymers synthesized with *rac*-Et(Ind)₂ZrCl₂/MAO catalyst system

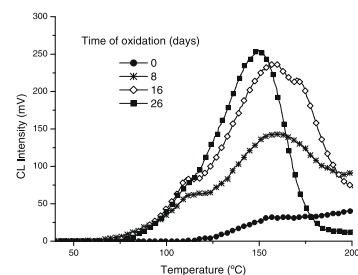
T. Corrales ^a, M. Escudero ^b, R. Quijada ^b, F. Catalina ^a, C. Abruci ^a

^a Departamento de Fotoquímica de Polímeros, Instituto de Ciencia y Tecnología de Polímeros, C.S.I.C. Juan de la Cierva 3, 28006 Madrid, Spain

^b Departamento de Ingeniería Química, Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile and Centro para la Investigación Interdisciplinaria Avanzada en Ciencia de los Materiales (CIMAT), Casilla 2772, Santiago, Chile

Chemiluminescence temperature-ramping curves obtained for UV irradiated mPE-H4.1 at different times, under nitrogen.

Eur Polym J 45 (2009) 2708



SHORT COMMUNICATION

Eur Polym J 45 (2009) 2726

Synthesis and photovoltaic

properties of poly(*p*-phenylenevinylene) derivatives with two triphenylamine and bithiophene conjugated side chainsPing Shen ^a, Bin Zhao ^{a,b}, Xianwei Huang ^a, Hui Huang, Songting Tan ^{a,b}^a College of Chemistry and Key Laboratory of Advanced Functional Polymeric Materials, College of Hunan Province, Xiangtan University, Xiangtan 411105, PR China^b Key Laboratory of Polymeric Materials & Application Technology of Hunan Province, Xiangtan University, Xiangtan 411105, PR China

Two soluble poly(*p*-phenylenevinylene) derivatives (PPVs) with two bithiophenes as conjugated side chains, **P1** and **P2**, were synthesized and characterized for application in polymer solar cells (PSCs). The power conversion efficiencies (η) based on the **P1/P2** and

