



Graphical Abstracts/Eur Polym J 49 (2013) 3411–3419

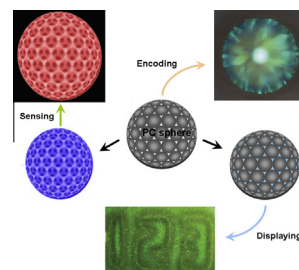
REVIEW ARTICLE

Recent advances in spherical photonic crystals: Generation and applications in optics

Jianying Wang, Jintao Zhu

Key Laboratory of Large-Format Battery Materials and Systems of the Ministry of Education, School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan 430074, PR China

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MACROMOLECULAR NANOTECHNOLOGY

Dielectric relaxations in polyhydroxyalkanoates/organoclay nanocomposites

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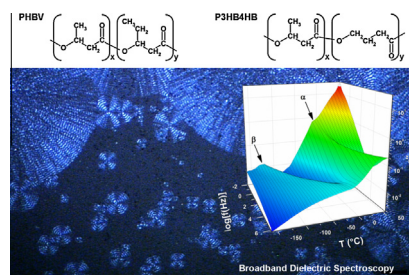
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Achieving structural control with thin polystyrene-*b*-polydimethylsiloxane block copolymer films: The complex relationship of interface chemistry, annealing methodology and process conditions

Benjamin M.D. O'Driscoll^a, Roisin A. Kelly^a, Matthew Shaw^{b,c}, Parvaneh Mokarian-Tabari^{b,d}, George Lontos^e, Konstantinos Ntetsikas^e, Apostolos Avgeropoulos^e, Nikolay Petkov^a, Michael A. Morris^{b,d}

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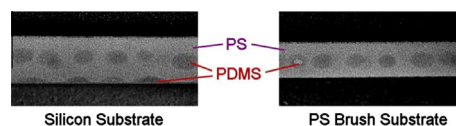
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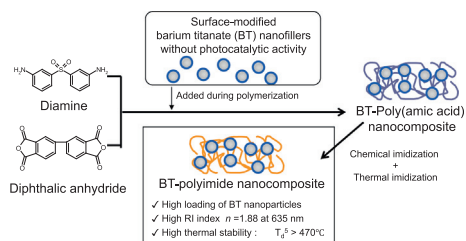
Eur Polym J 49 (2013) 3445



Fabrication of highly refractive BaTiO₃ nanocomposite films using heat resistant polymer as matrix

Keisuke Abe, Daisuke Nagao, Mikio Konno

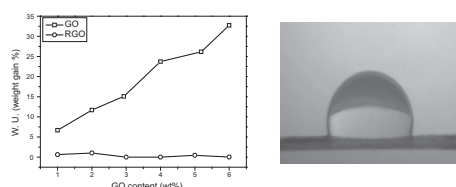
Department of Chemical Engineering, Graduate School of Engineering, Tohoku University, 6-6-07 Aoba, Aramaki-aza, Aoba-ku, Sendai 980-8579, Japan



Polymer/graphite nanocomposites: Effect of reducing the functional groups of graphite oxide on water barrier properties

Hussein M. Etmimi, Peter E. Mallon, Ronald D. Sanderson

Department of Chemistry and Polymer Science, University of Stellenbosch, Private Bag X1, Matieland 7602, South Africa



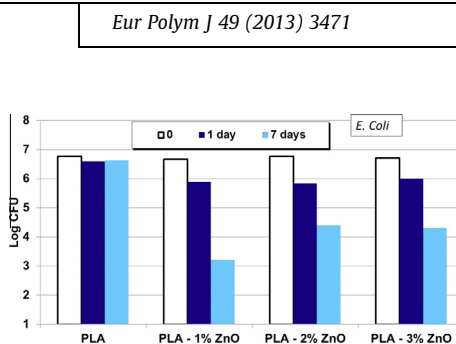
PLA-ZnO nanocomposite films: Water vapor barrier properties and specific end-use characteristics

Roberto Pantani^a, Giuliana Gorrasi^a, Giovanni Vigliotta^b, Marius Murariu^c, Philippe Dubois^c

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Nanoreactors based on self-assembled amphiphilic diblock copolymers for the preparation of ZnO nanoparticles

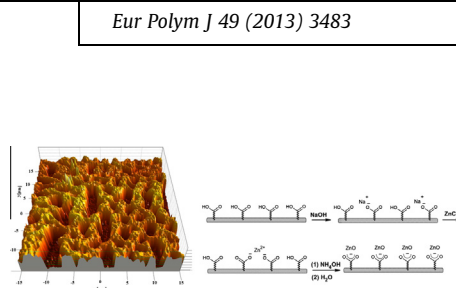
Guadalupe del C. Pizarro^a, Oscar G. Marambio^a, C.M. González Henríquez^a, M. Sarabia Vallejos^b, Kurt E. Geckeler^{c,d}

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^bFacultad de Física, Pontificia Universidad Católica de Chile, Vicuña Mackenna 4860, Santiago 7820436, Chile

^cDepartment of Nanobio Materials and Electronics, World-Class University (WCU), Gwangju Institute of Science and Technology (GIST), Gwangju 500-712, Republic of Korea

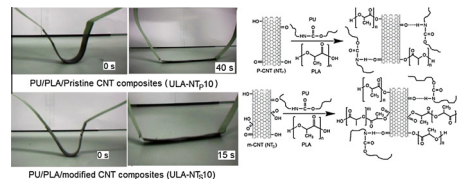
^dLaboratory of Applied Macromolecular Chemistry, School of Materials Science and Engineering, Gwangju Institute of Science and Technology (GIST), Gwangju, Republic of Korea



Thermal, mechanical and electroactive shape memory properties of polyurethane (PU)/poly (lactic acid) (PLA)/CNT nanocomposites

Mohan Raja, Sung Hun Ryu, A.M. Shanmugaraj

Department of Chemical Engineering, Kyung Hee University, Yongin, Kyunggi-Do 449-701, South Korea



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Methods for the preparation of doxycycline-loaded phb micro- and nano-spheres

Alejandra Rodríguez-Contreras^a, Cristina Canal^{b,c}, Margarita Calafell-Monfort^d, Maria-Pau Ginebra^{b,c}, Gemma Julio-Moran^a, María-Soledad Marqués-Calvo^a

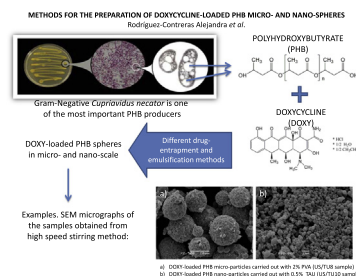
^aDepartament d'Òptica i Optometria, Universitat Politècnica Catalunya-Barcelona Tech, Sant Nebridi 22, 08222 Terrassa, Barcelona, Spain

^bDepartament de Ciència dels Materials i Enginyeria Metal·lúrgica, Universitat Politècnica Catalunya-Barcelona Tech, Av. Diagonal, 647, 08028 Barcelona, Spain

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Soft-graphoepitaxy using nanoimprinted polyhedral oligomeric silsesquioxane substrates for the directed self-assembly of PS-*b*-PDMS

Dipu Borah^{a,b,c}, Claudia D. Simao^d, Ramsankar Senthamaraiannan^{a,c}, Sozaraj Rasappa^{a,b,c}, Achille Francone^d, Olivier Lorret^e, Mathieu Salaun^f, Barbara Kosmala^{a,b}, Nikolaos Kehagias^d, Marc Zelsmann^f, Clivia M. Sotomayor-Torres^{d,g}, Michael A. Morris^{a,b,c}

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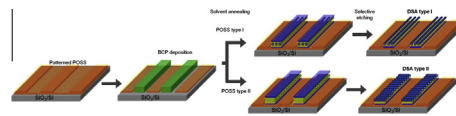
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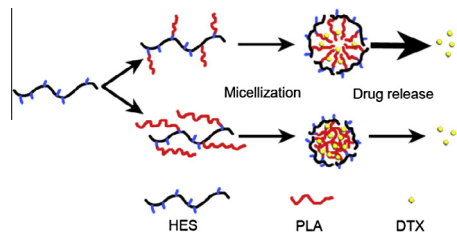


Novel nanomicelles originating from hydroxyethyl starch-g-poly lactide and their release behavior of docetaxel modulated by the PLA chain length

Qingyao Liu^a, Xiangliang Yang^b, Huibi Xu^b, Kaijin Pan^b, Yajiang Yang^a

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^bCollege of Life Science and Technology, Huazhong University of Science and Technology, Wuhan 430074, China



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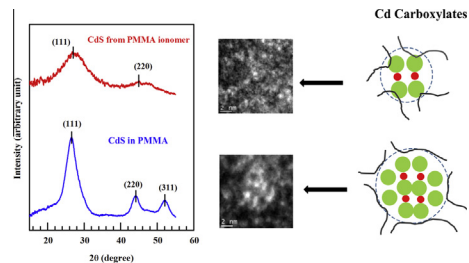
CdS and Cd carboxylate nanoclusters dispersed in polymer matrix produced by a freeze drying method

Chonggang Wu^a, Thomas J. Emge^b, Frederic Cosandey^c, Masanori Hara^a

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REGULAR ARTICLES

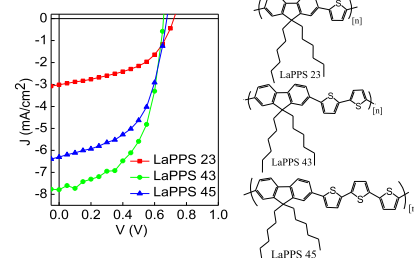
Correlations between the number of thiophene units and the photovoltaic behavior of fluorene-oligothiophene copolymers

Isabel R. Grova^{a,b}, Andreia G. Macedo^c, Lucimara S. Roman^c, Leni Akcelrud^{a,b}

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^cNanostructured Devices Group (DINE), Physics Department, Federal University of Parana, Brazil

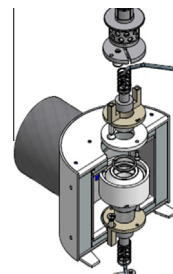


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Chemical shrinkage and thermomechanical characterization of an epoxy resin during cure by a novel in situ measurement method

C. Billotte, F.M. Bernard, Edu Ruiz

Chaire sur les Composites à Haute Performance (CCHP), École Polytechnique de Montréal, CP 6079, Centre-ville Station, Montreal, Quebec H3C 3A7, Canada



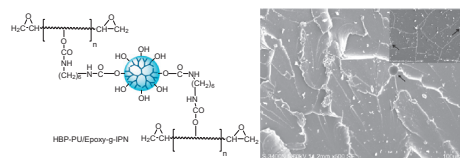
Eur Polym J 49 (2013) 3548

Effect of new hyperbranched polyester of varying generations on toughening of epoxy resin through interpenetrating polymer networks using urethane linkages

D. Manjula Dhevi^a, S.N. Jaisankar^b, Madhvesh Pathak^a

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^bPolymer Lab, Central Leather Research Institute, Adyar, Chennai 600 020, India



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Functionalization of polyurethanes by incorporation of alkyne side-groups to oligodiols and subsequent thiol- γ -yne post-modification

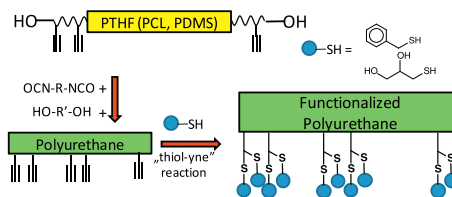
Eur Polym J 49 (2013) 3573

Malgorzata Basko^a, Melania Bednarek^a, Le-Thu T. Nguyen^{b,c}, Przemyslaw Kubisa^a, Filip Du Prez^b

^aCenter of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90-362 Lodz, Poland

^bDepartment of Organic Chemistry, Polymer Chemistry Research Group, Ghent University, Krijgslaan 281 S4-bis, B-9000 Ghent, Belgium

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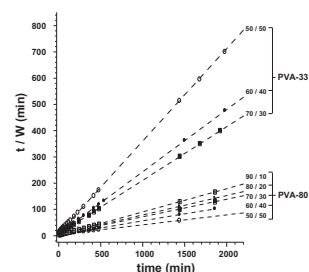


Chemical-physical behavior of hydrogels of poly(vinyl alcohol) and poly(ethylene glycol)

Eur Polym J 49 (2013) 3582

José Luis Gadea, Luis C. Cesteros, Issa Katime

Grupo de Nuevos Materiales y Espectroscopia Supramolecular, Facultad de Ciencia y Tecnología, Campus de Leioa, Leioa 48940, Vizcaya, Spain



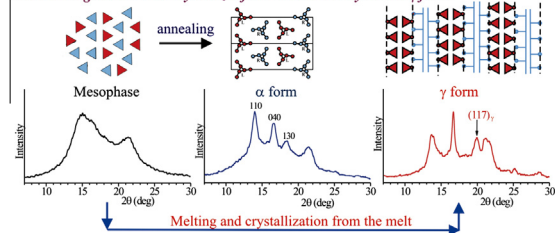
Stability and phase transformations of the mesomorphic form of isotactic polypropylene in stereodeficient polypropylene

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Claudio De Rosa, Finizia Auriemma, Odda Ruiz de Ballesteros, Rocco Di Girolamo, Martina Pepe, Oreste Tarallo, Anna Malafrente

Dipartimento di Scienze Chimiche, Università di Napoli "Federico II", Complesso Monte S. Angelo, Via Cintia, I-80126 Napoli, Italy

The structure of the mesophase of iPP is similar to the α form because it transforms into α form in stereoregular iPP that crystallizes from the melt always in the γ form.

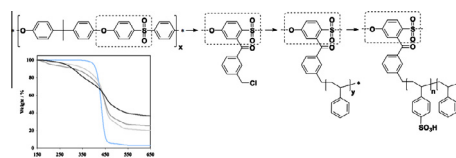


Sulfonated hydrocarbon graft architectures for cation exchange membranes

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Mads M. Nielsen, Katja Jankova, Søren Hvilsted

Danish Polymer Centre, Department of Chemical and Biochemical Engineering, Technical University of Denmark, Søtofts Plads, Building 227, DK-2800 Kgs. Lyngby, Denmark

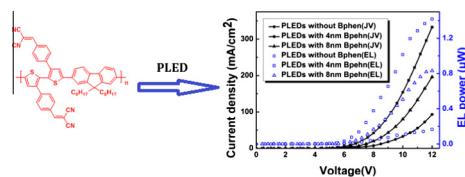


Synthesis, optical, electrochemical and electroluminescent properties of novel fluorene-alt-bithiophene copolymers bearing phenylvinyl bridged accepting side chains

Jiefeng Hai^a, Enwei Zhu^a, Linyi Bian^a, Jin Wang^b, Zixuan Wang^b, Yang Li^a, Liangming Yin^a, Fujun Zhang^b, Weihua Tang^a

^aKey Laboratory of Soft Chemistry and Functional Materials (Ministry of Education of China), Nanjing University of Science and Technology, Nanjing 210094, People's Republic of China

^bKey Laboratory of Luminescence and Optical Information (Ministry of Education of China), Beijing Jiaotong University, Beijing 100044, People's Republic of China



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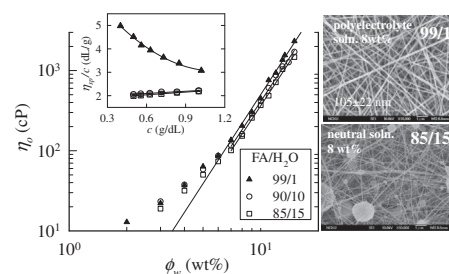
Rheological aspect on electrospinning of polyamide 6 solutions

Shih-Yung Tsou^a, Hsuan-Sheng Lin^a, Po-Jen Cheng^a, Chien-Lin Huang^b, Jeng-Yue Wu^c, Chi Wang^a

^aDepartment of Chemical Engineering, National Cheng Kung University, Tainan 701, Taiwan

^bDepartment of Fiber and Composite Materials, Feng Chia University, Taichung 407, Taiwan

^cDepartment of Chemical Engineering, National Chung Hsing University, Taichung 402, Taiwan



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Tough blends of poly(lactide) and amorphous poly([R,S]-3-hydroxy butyrate) – morphology and properties

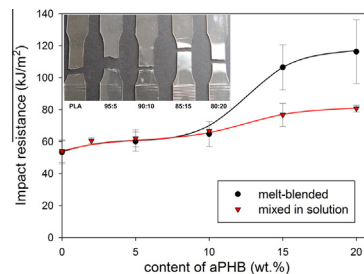
Zbigniew Bartczak^a, Andrzej Galeski^a, Marek Kowalczyk^b, Michal Sobota^b, Rafal Malinowski^c

^aCentre of Molecular and Macromolecular Studies, Polish Academy of Sciences, Sienkiewicza 112, 90-363 Lodz, Poland

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^cInstitute of Engineering of Polymer Materials and Dyes, 87-100 Torun, Poland

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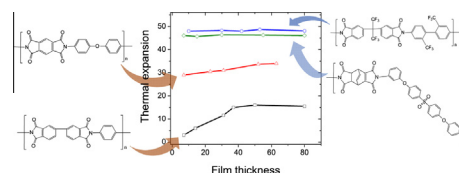


Structural and compositional effects on thermal expansion behavior in polyimide substrates of varying thicknesses

Youngsuk Jung^a, Yoosong Yang^a, Sangmo Kim^a, Hyun-Sik Kim^a, Tai-gyoo Park^a, Byung Wook Yoo^b

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PPy modified titanium foam electrode with high performance for supercapacitor

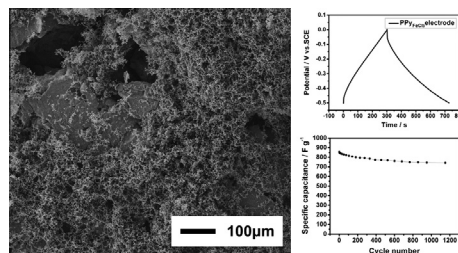
Jiatong Wei^a, Susheng Wei^b, Guibao Wang^a, Xinping He^a, Bo Gao^c, Chun Zhao^a

^aState Key Laboratory on Integrated Optoelectronics, College of Electronic Science and Engineering, Jilin University, 2699 Qianjin Street, Changchun 130012, China

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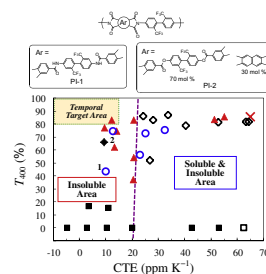


Solution-processable transparent polyimides with low coefficients of thermal expansion and self-orientation behavior induced by solution casting

Masatoshi Hasegawa, Tomohiro Ishigami, Junichi Ishii, Kentaro Sugiura, Mari Fujii

Department of Chemistry, Faculty of Science, Toho University, 2-2-1 Miyama, Funabashi, Chiba 274-8510, Japan

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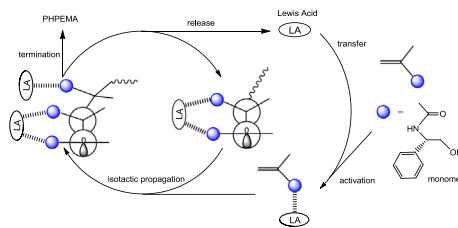


Stereospecific radical polymerization of optically active (S)-N-(2-hydroxy-1-phenylethyl) methacrylamide catalyzed by Lewis acids

Xiaodong Xu, Siwei Feng, Yuanqi Zhu, Han Li, Xiande Shen, Chunhong Zhang, Jianwei Bai, Lili Zhang

Polymer Materials Research Center and Key Laboratory of Superlight Materials and Surface Technology, Ministry of Education, College of Materials Science and Chemical Engineering, Harbin Engineering University, Harbin 150001, China

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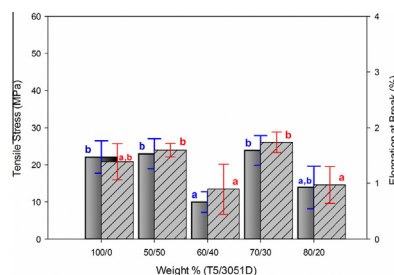
Assessing the mechanical, phase inversion, and rheological properties of poly-[(R)-3-hydroxybutyrate-co-(R)-3-hydroxyvalerate] (PHBV) blended with poly-(L-lactic acid) (PLA)

Sunny Modi^a, Kurt Koelling^b, Yael Vodovotz^a

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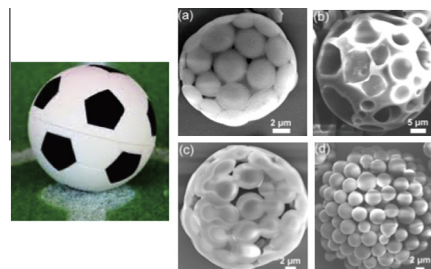
Synthesis of polymer–inorganic patchy microcapsules with tunable patches

Nan Cao^{a,b}, Shanqin Liu^a, Min Wu^a, Renhua Deng^a, Jianying Wang^a, Zhiping Zhang^b, Jintao Zhu^a

^aKey Laboratory of Large-Format Battery Materials and Systems of Ministry of Education, School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology (HUST), Wuhan 430074, PR China

^bTongji School of Pharmacy, HUST, Wuhan 430030, PR China

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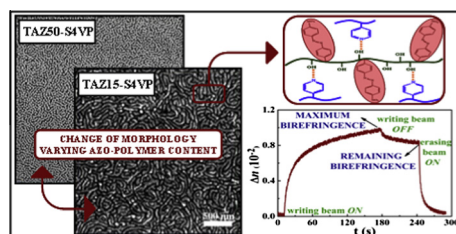


Local environment influence on the optical properties of block copolymers containing an epoxy-based azo-prepolymer

Raquel Fernández, Connie Ocando, Arantxa Eceiza, Agnieszka Tercjak

Group 'Materials + Technologies' (GMT), Department of Chemical and Environmental Engineering, Polytechnic School, University of Basque Country (UPV/EHU), Plaza Europa 1, 20018 Donostia-San Sebastián, Spain

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Films based on proteins and polysaccharides: Preparation and physical–chemical characterization

Pedro Guerrero, Tania Garrido, Itsaso Leceta, Koro de la Caba

BIOMAT Research Group, University of the Basque Country (UPV/EHU), Department of Chemical and Environmental Engineering Polytechnic School, Donostia-San Sebastián, Spain

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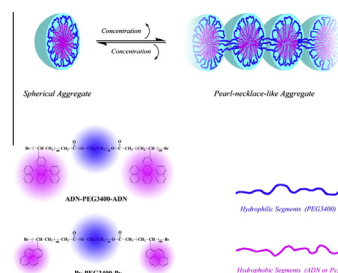


Self-assembly and aggregation of ATRP prepared amphiphilic BAB tri-block copolymers contained nonionic ethylene glycol and fluorescent 9,10-di(1-naphthalenyl)-2-vinyl-anthracene/1-vinyl-pyrene segments

Jianli Wang, Louis M. Leung

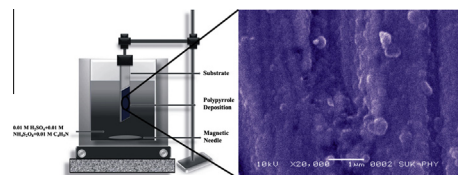
Department of Chemistry, Hong Kong Baptist University, Kowloon, Hong Kong Special Administrative Region

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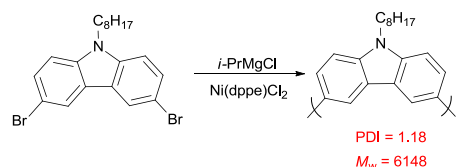


SHORT COMMUNICATIONS

Eur Polym J 49 (2013) 3734

Novel chemical synthesis of polypyrrole thin film electrodes for supercapacitor applicationSujata S. Shinde, Girish S. Gund, Vijay S. Kumbhar, Bebi H. Patil,
Chandrakant D. LokhandeThin Film Physics Laboratory, Department of Physics, Shivaji University, Kolhapur 416004 (M.S),
India**Efficient synthesis of well-defined polycarbazoles via catalyst-transfer Kumada coupling polymerization**

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Haibo Wen^b, Ziyi Ge^a, Ying Liu^a, Tsutomu Yokozawa^c, Liang Lu^a,
Xinhua Ouyang^a, Ze Tan^b^aNingbo Institute of Material Technology & Engineering, Chinese Academy of Sciences,
Ningbo 315201, PR China^bCollege of Chemistry and Chemical Engineering, Hunan University, Changsha 410082, PR China^cDepartment of Applied Chemistry, Kanagawa University, Rokkakubashi, Kanagawa-ku,
Yokohama 221-8686, Japan

COMMUNICATION TO THE EDITOR

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Comments on the “Controlled cationic polymerization of furfuryl alcohol”

Alessandro Gandini

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