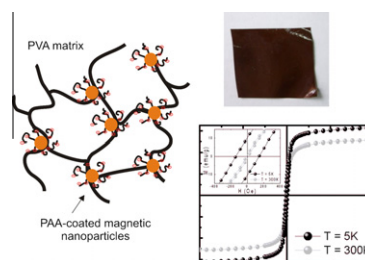




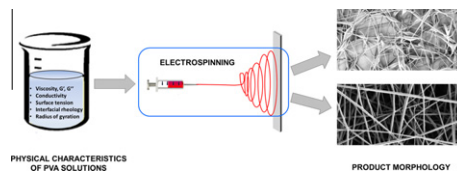
Graphical Abstracts/Eur Polym J 49 (2013) 271–278

MACROMOLECULAR NANOTECHNOLOGY
ARTICLES**Structural and magnetic behavior of ferrogels obtained by freezing thawing of polyvinyl alcohol/poly(acrylic acid) (PAA)-coated iron oxide nanoparticles**O. Moscoso-Londoño^a, J.S. Gonzalez^b, D. Muraca^c, C.E. Hoppe^b, V.A. Alvarez^b, A. López-Quintela^d, L.M. Socolovskya^a, K.R. Pirola^c^aLaboratorio de Sólidos Amorfos (LSA), INTECIN, Facultad de Ingeniería, Universidad de Buenos Aires – CONICET, C1063ACV Buenos Aires, Argentina^bInstitute of Materials Science and Technology (INTEMA), University of Mar del Plata (UNMdP) and National Research Council (CONICET), Av. J.B. Justo 4302, B7608FDQ Mar del Plata, Argentina^cLaboratorio de Materiais e Baixas Temperaturas (LMBT), Instituto de Física 'Gleb Wataghin', Universidade Estadual de Campinas, CEP 13083-859 Campinas-SP, Brazil^dDepartamento de Química Física, Facultad de Química, Universidad de Santiago de Compostela (USC), 15782 Santiago de Compostela, Spain

Eur Polym J 49 (2013) 279

**Physical characteristics of poly (vinyl alcohol) solutions in relation to electrospun nanofiber formation**Romana Rošič^a, Jan Pelipenko^a, Julijana Kristl^a, Petra Kocbek^a, Marija Bešter-Rogač^b, Saša Baumgartner^a^aUniversity of Ljubljana, Faculty of Pharmacy, Aškerčeva cesta 7, 1000 Ljubljana, Slovenia^bUniversity of Ljubljana, Faculty of Chemistry and Chemical Technology, Aškerčeva cesta 5, 1000 Ljubljana, Slovenia

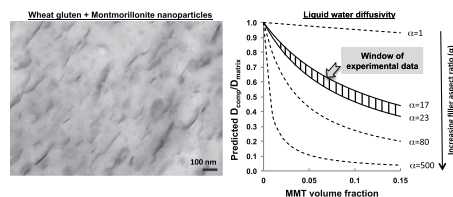
Eur Polym J 49 (2013) 290

**Nanoparticle size and water diffusivity in nanocomposite agro-polymer based films**

Hélène Angellier-Coussy, Emmanuelle Gastaldi, Felipe Correa Da Silva, Nathalie Gontard, Valérie Guillard

Unité Mixte de Recherche «Ingénierie des Agropolymères et Technologies Emergentes», INRA/ENSA.M/UMI/CIRAD, Université Montpellier II, CC023, pl. E Bataillon, 34095 Montpellier, Cedex, France

Eur Polym J 49 (2013) 299



Effect of nano-clay on ionic conductivity and electrochemical properties of poly(vinylidene fluoride) based nanocomposite porous polymer membranes and their application as polymer electrolyte in lithium ion batteries

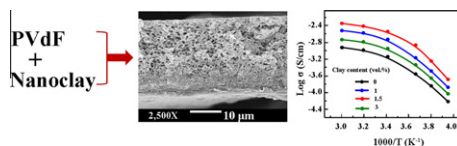
Eur Polym J 49 (2013) 307

Raghavan Prasanth^{a,b,c}, Nageswaran Shubha^a, Huey Hoon Hng^a,
Madhavi Srinivasan^{a,b,c}

^aSchool of Materials Science and Engineering, Nanyang Technological University, Block N4.1, 50 Nanyang Avenue, Singapore 639798, Singapore

^bEnergy Research Institute @ NTU (ERI@N), Research Techno Plaza, Nanyang Technological University, 50 Nanyang Drive, Singapore 637553, Singapore

^cTUM-CREATE, Center for Electromobility, Nanyang Technological University, Singapore 637553, Singapore

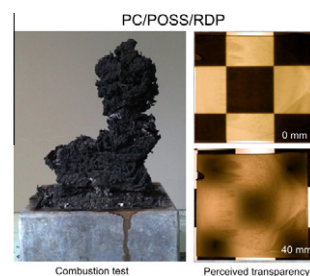


Polycarbonate nanocomposite with improved fire behavior, physical and psychophysical transparency

Eur Polym J 49 (2013) 319

H. Vahabi, O. Eterradosi, L. Ferry, C. Longuet, R. Sonnier, J.-M. Lopez-Cuesta

Centre de Recherche CMGD, Ecole des Mines d'Alès, 6 avenue de Clavières, F-30319 Ales Cedex, France



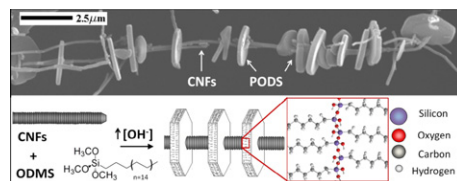
Polymerized organosiloxanes decorated onto carbon nanofibers forming shish-kebab architectures under highly alkaline conditions

Eur Polym J 49 (2013) 328

Weston Wood, Tian Liu, Wei-Hong Zhong

School of Mechanical and Materials Engineering, Washington State University, Pullman, WA 99164, USA

Surface treatment of octadecyltrimethoxysilane (ODMS) onto carbon nanofibers (CNFs) under highly alkaline conditions led to distinctive, polymerized octadecyltrimethoxysilane (PODS)-CNF shish kebab structures.



Processable polyaniline suspensions through in situ polymerization onto nanocellulose

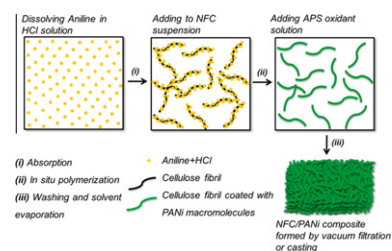
Eur Polym J 49 (2013) 335

Nguyen Dang Luong^a, Juuso T. Korhonen^b, Antti J. Soininen^b,
Janne Ruokolainen^b, Leena-Sisko Johansson^c, Jukka Seppälä^a

^aPolymer Technology, Department of Biotechnology and Chemical Technology, Aalto University, School of Chemical Technology, P.O. Box 16100, FI-00076 Aalto, Finland

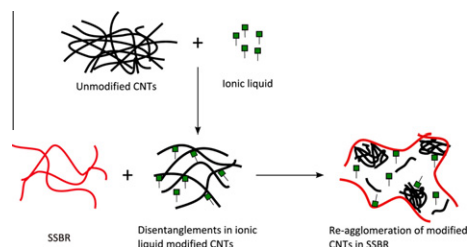
^bMolecular Materials, Department of Applied Physics, Aalto University, School of Science, P.O. Box 15100, FI-00076 Aalto, Finland

^cForest Products Surface Chemistry Group, Department of Forest Products Technology, Aalto University, School of Chemical Technology, P.O. Box 16300, FI-00076 Aalto, Finland



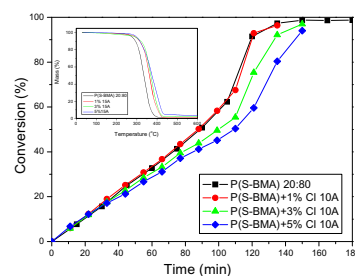
Networking of ionic liquid modified CNTs in SSBR

Eur Polym J 49 (2013) 345

Kalaivani Subramaniam^{a,b}, Amit Das^a, Frank Simon^a, Gert Heinrich^{a,b}^aLeibniz-Institut für Polymerforschung Dresden e.V., Hohe Str. 6, 01069 Dresden, Germany^bTechnische Universität Dresden, Institut für Werkstoffwissenschaft, Helmholtzstr. 7, 01069 Dresden, Germany

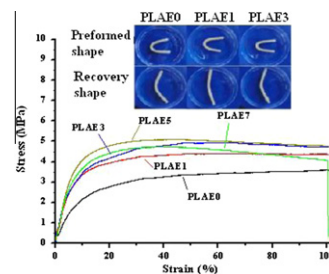
Synthesis and characterization of novel nanocomposite materials based on poly(styrene-co-butyl methacrylate) copolymers and organomodified clay

Eur Polym J 49 (2013) 353

Mohammad Nahid Siddiqui^a, Halim Hamid Redhwi^b, Klontian Gkinis^c, Dimitris S. Achilias^c^aChemistry Department and Center of Excellence in Nanotechnology (CENT), King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia^bChemical Engineering Department, King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia^cLaboratory of Organic Chemical Technology, Department of Chemistry, Aristotle University of Thessaloniki, 541 24 Thessaloniki, Greece

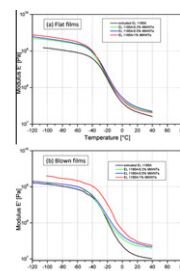
Poly lactide-based thermoplastic shape memory polymer nanocomposites

Eur Polym J 49 (2013) 366

Beibei Yan^a, Shuying Gu^{a,b}, Yihan Zhang^a^aInstitute of Nano- and Bio-Polymeric Materials, School of Materials Science and Engineering, Tongji University, Shanghai 201804, PR China^bKey Laboratory of Advanced Civil Engineering Materials, Ministry of Education, School of Materials Science and Engineering, Tongji University, Shanghai 201804, PR China

Thermoplastic polyurethane films reinforced with carbon nanotubes: The effect of processing on the structure and mechanical properties

Eur Polym J 49 (2013) 379

P. Russo^{a,b}, M. Lavorgna^c, F. Piscitelli^c, D. Acierno^a, L. Di Maio^d^aDepartment of Materials and Production Engineering, University of Naples Federico II, P.le Vincenzo Tecchio 80, 80125 Naples, Italy^bInstitute of Chemistry and Technology of Polymers, National Council of Research, Via Campi Flegrei 34, 80078 Pozzuoli (Na), Italy^cInstitute of Composite and Biomedical Materials, National Council of Research, P.le E. Fermi 1, 80055 Portici (Na), Italy^dDepartment of Industrial Engineering, University of Salerno, Via Ponte don Melillo, 80099 Fisciano (Sa), Italy

Temperature-sensitive poly(*N*-isopropylacrylamide)/graphene oxide nanocomposite hydrogels by *in situ* polymerization with improved swelling capability and mechanical behavior

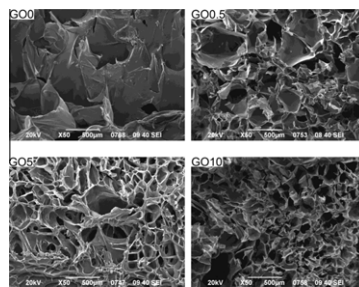
Xiaomei Ma^a, Yanhong Li^a, Wenchao Wang^a, Quan Ji^a, Yanzhi Xia^b

^aSchool of Chemical Engineering and Environmental Science, Qingdao University, Ningxia Road 308, Qingdao 266071, PR China

^bKey Lab of State Cultivating Base for New Fiber Materials and Modern Textile, Qingdao University, Ningxia Road 308, Qingdao 266071, PR China

The internal network structure of the prepared hydrogels was investigated by scanning electronic microscope. The result suggests that incorporation of graphene oxide has significant influence on the internal network structure of the hydrogels. The network density increases and the pore sizes decreases respectively with the increase of GO content. The internal network structural feature has close relation to the mechanical behavior of hydrogels.

Eur Polym J 49 (2013) 389



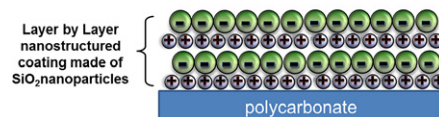
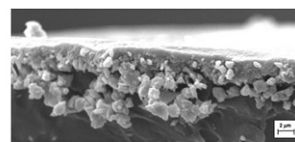
SEM images of the prepared hydrogels

Layer by layer nanoarchitectures for the surface protection of polycarbonate

Federico Carosio, Alessandro Di Blasio, Jenny Alongi, Giulio Malucelli

Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino, sede di Alessandria, Viale Teresa Michel 5, 15121 Alessandria, Italy

Eur Polym J 49 (2013) 397



Micellar nanocontainers based on PAAm-*b*-PEO-*b*-PAAm triblock copolymers for poorly soluble drugs

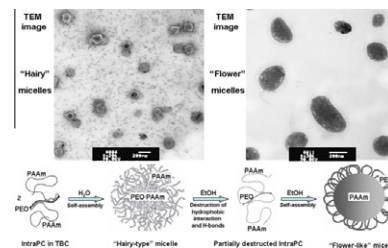
Tatyana Zheltonozhskaya^a, Sofia Partsevskaya^a, Sergey Fedorchuk^a, Dmytro Klymchuk^b, Yuriy Gomza^c, Nataliya Permyakova^a, Larisa Kunitskaya^a

^aKiev National Taras Shevchenko University, Faculty of Chemistry, Department of Macromolecular Chemistry, 64 Vladimirskaya St., 01033 Kiev, Ukraine

^bInstitute of Botany, National Academy of Sciences of Ukraine, 2 Tereshchenkivskaya St., 01601 Kiev, Ukraine

^cInstitute for Macromolecular Chemistry, National Academy of Sciences of Ukraine, 48 Kharkovskoye Shosse, 02160 Kiev, Ukraine

Eur Polym J 49 (2013) 405

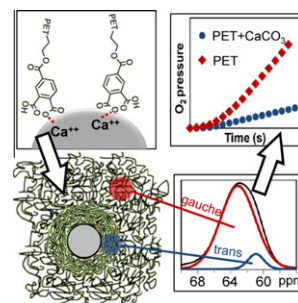


Polymer-filler interactions in PET/CaCO₃ nanocomposites: Chain ordering at the interface and physical properties

Roberto Avolio, Gennaro Gentile, Maurizio Avella, Cosimo Carfagna, Maria Emanuela Errico

Institute of Polymer Chemistry and Technology, National Research Council of Italy, Via Campi Flegrei 34, 80078 Pozzuoli (NA), Italy

Eur Polym J 49 (2013) 419



Silanization and silica enrichment of multiwalled carbon nanotubes: Synergistic effects on the thermal-mechanical properties of epoxy nanocomposites

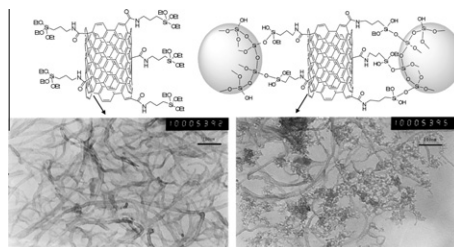
M. Lavorgna^a, V. Romeo^a, A. Martone^a, M. Zarrelli^a, M. Giordano^a, G.G. Buonocore^a, M.Z. Qu^b, G.X. Fei^c, H.S. Xia^c

^aInstitute of Composite and Biomedical Materials, National Research Council, P.le Fermi 1-80055 Portici (NA), Italy

^bChengdu Institute of Organic Chemistry, Chinese Academy of Science, Chengdu, China

^cState Key Laboratory of Polymer Materials Engineering, Polymer Research Institute Sichuan University, Chengdu, China

Eur Polym J 49 (2013) 428



REGULAR ARTICLES ARTICLES

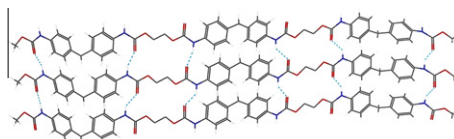
Non-Gaussian behavior of self-assembled thermoplastic polyurethane elastomers synthesized using two-step polymerization and investigated using constant-strain stress relaxation and molecular modeling techniques

Tarek M. Madkour^a, Rasha A. Azzam^b

^aDepartment of Chemistry, The American University in Cairo, New Cairo 11835, Egypt

^bDepartment of Chemistry, Helwan University, Ain-Helwan 11795, Egypt

Eur Polym J 49 (2013) 439



2-Oxazoline based photo-responsive azo-polymers. Synthesis, characterization and isomerization kinetics

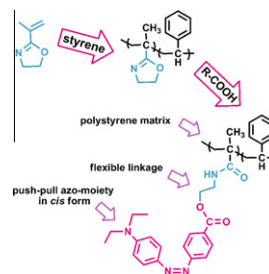
Mitica Cezar Spiridon^{a,c}, Florica Adriana Jerca^{a,b}, Valentin Victor Jerca^a, Dan Sorin Vasilescu^c, Dumitru Mircea Vuluga^a

^aCentre for Organic Chemistry "Costin D. Nenitescu", Romanian Academy, 202B Spl. Independentei CP 35-108, Bucharest 060023, Romania

^bIlie Murgulescu Institute of Physical Chemistry, Colloid Department, 202 Spl. Independentei CP 12-194, Bucharest 060021, Romania

^cUniversity "POLITEHNICA" in Bucharest, Department of Polymer Science, 149 Calea Victoriei, Bucharest 010072, Romania

Eur Polym J 49 (2013) 452



Rheological studies of polycaprolactone in supercritical CO₂

Catherine A. Kelly^a, Shona H. Murphy^b, Gary A. Leeke^a, Steven M. Howdle^c, Kevin M. Shakesheff^d, Mike J. Jenkins^b

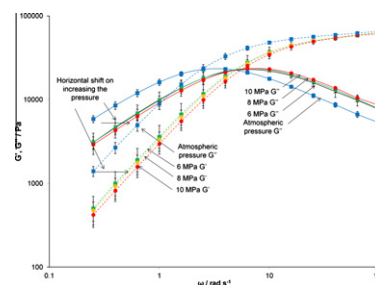
^aSchool of Chemical Engineering, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

^bSchool of Metallurgy and Materials, University of Birmingham, Edgbaston, Birmingham B15 2TT, UK

^cSchool of Chemistry, University of Nottingham, University Park, Nottingham NG7 2RD, UK

^dSchool of Pharmacy, University of Nottingham, University Park, Nottingham NG7 2RD, UK

Eur Polym J 49 (2013) 464

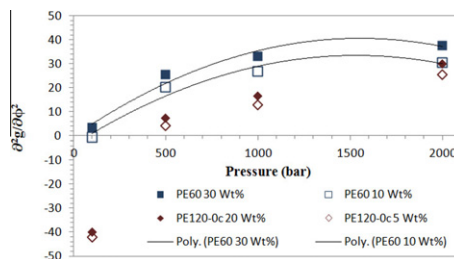


High pressure miscibility predictions of polyethylene in hexane solutions based on molecular dynamics

Moeed Shahamat, Alejandro D. Rey

Department of Chemical Engineering, McGill University, 3610 University Street, Montreal, Quebec, Canada H3A 2B2

Eur Polym J 49 (2013) 471

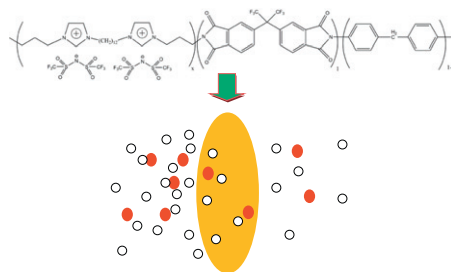


Synthesis of room temperature ionic liquids based random copolyimides for gas separation applications

Pei Li, Maria R. Coleman

Department of Chemical and Environmental Engineering, The University of Toledo, 2801 W. Bancroft St., Nitschke Hall, RM 3048, Toledo, OH 43606, USA

Eur Polym J 49 (2013) 482

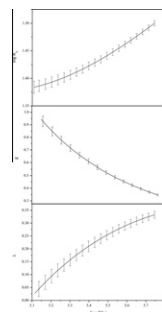


Determination of long chain branching in PE samples by GPC-MALS and GPC-VIS: Comparison and uncertainties

Inmaculada Suárez, Baudilio Coto

Chemical and Energy Technology Department, ESCET, Universidad Rey Juan Carlos, c/Tulipan s/n, 28933 Mostoles, Madrid, Spain

Eur Polym J 49 (2013) 492



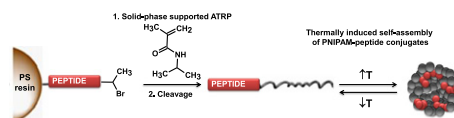
Thermosensitive PNIPAM-peptide conjugate – Synthesis and aggregation

Barbara Trzebicka^a, Barbara Robak^a, Roza Trzcinska^a, Dawid Szweda^a, Piotr Suder^b, Jerzy Silberring^{a,b}, Andrzej Dworak^a

^aCentre of Polymer and Carbon Materials, Polish Academy of Sciences, M. Curie-Skłodowskiej 34, 41-819 Zabrze, Poland

^bAGH University of Science and Technology, Mickiewicza 30, 30-059 Krakow, Poland

Eur Polym J 49 (2013) 499



Effect of thermal history on the evolution of crystal and amorphous fractions of poly[(R)-3-hydroxybutyrate] upon storage at ambient temperature

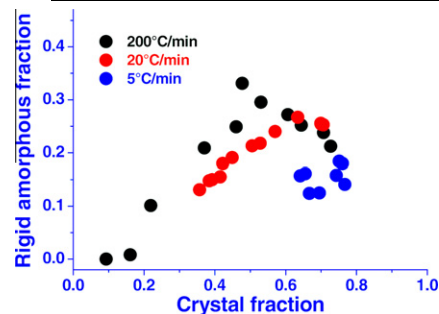
Maria Laura Di Lorenzo^a, Maria Cristina Righetti^b

^aConsiglio Nazionale delle Ricerche – Istituto di Chimica e Tecnologia dei Polimeri, c/o Comprensorio Olivetti, Via Campi Flegrei 34, 80078 Pozzuoli (NA), Italy

^bConsiglio Nazionale delle Ricerche – Istituto per i Processi Chimico-Fisici, Via G. Moruzzi, 1, 56124 Pisa, Italy

Rigid amorphous fraction (w_{RA}) of PHB after cooling from the melt at the indicated rates, plotted as a function of crystallinity (w_c).

Eur Polym J 49 (2013) 510



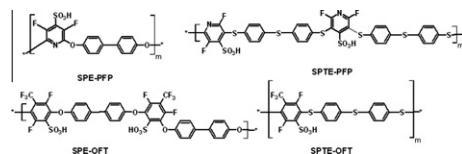
Novel partially fluorinated sulfonated poly(arylenethioether)s and poly(aryleneether)s prepared from octafluorotoluene and pentafluoropyridine, and their blends with PBI-Celazol

Corina Seyb, Jochen Kerres

Institute of Chemical Process Engineering, University of Stuttgart, Boeblingenstrasse 78, 70199 Stuttgart, Germany

In this study we synthesized novel partially fluorinated poly(arylenethioether)s and poly(aryleneether)s and blended these polymers with PBI-Celazol[®] to yield base excess blend membranes. The polymers and blend membranes were characterized in terms of their thermal stability and we found out, that the blend membranes have much better thermal stabilities compared to the pure polymers. Also the chemical stability of the blend membranes were tested by Fenton test. SPE-OFT-PBI-Celazol had a higher chemical stability compared to SPTE-PFP-PBI-Celazol, due to the higher molecular weight of SPE-OFT.

Eur Polym J 49 (2013) 518



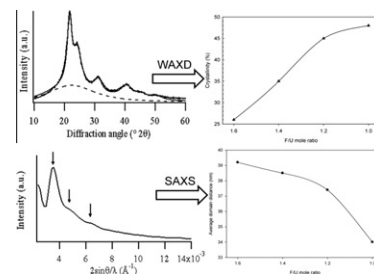
Crystallinity and domain size of cured urea-formaldehyde resin adhesives with different formaldehyde/urea mole ratios

Byung-Dae Park^a, Valerio Causin^b

^aDepartment of Wood Science and Technology, Kyungpook National University, Daegu 702-701, Republic of Korea

^bDipartimento di Scienze Chimiche, Università di Padova, via Marzolo 1, 35131 Padova, Italy

Eur Polym J 49 (2013) 532

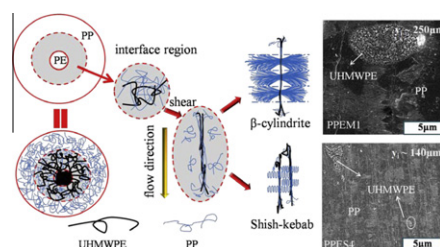


Unusual hierarchical structures of mini-injection molded isotactic polypropylene/ultrahigh molecular weight polyethylene blends

Yuan An, Rui-Ying Bao, Zheng-Ying Liu, Xiao-Jun Wu, Wei Yang, Bang-Hu Xie, Ming-Bo Yang

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

Eur Polym J 49 (2013) 538



A new and simple polycondensation method for the synthesis of sulfur-linked isoindole-phenylene based blue light-emitting copolymers

Miklós Nagy^a, Dávid Rácz^a, Pál Herczegh^c, Gyula Batta^b, György Deák^a, Balázs Lukács^d, István Jóna^d, Miklós Zsuga^a, Sándor Kéki^a

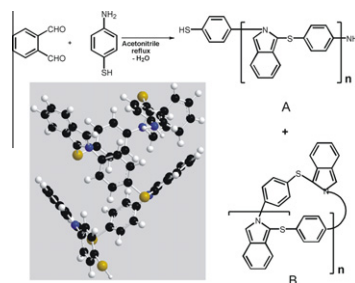
^aDepartment of Applied Chemistry, University of Debrecen, Hungary

^bDepartment of Organic Chemistry, University of Debrecen, H-4010 Debrecen, Hungary

^cDepartment of Pharmaceutical Chemistry, Medical and Health Science Centre, Hungary

^dDepartment of Physiology and Research Center for Molecular Medicine, Medical and Health Science Centre, University of Debrecen, Nagyerdei krt. 98, Debrecen H-4032, Hungary

Eur Polym J 49 (2013) 549



Competitive reactions in dendriplex and polyplex solutions

Marina V. Zhiryakova^a, Zinaida B. Shifrina^b, Vladimir A. Izumrudov^a

^aDepartment of Chemistry, M.V. Lomonosov Moscow State University, Leninskie Gory, 119991 Moscow, Russia

^bA.N. Nesmeyanov Institute of Organoelement Compounds of Russian Academy of Sciences, Vavilova St. 28, 119991 Moscow, Russia

Eur Polym J 49 (2013) 558



New pyridinium salts as versatile compounds for dye sensitized photopolymerization

Mohamad-Ali Tehfe^a, Abbas Zein-Fakih^{a,b}, Jacques Lalevée^a, Frédéric Dumur^c, Didier Gigmes^c, Bernadette Graff^a, Fabrice Morlet-Savary^a, Tayssir Hamieh^b, Jean-Pierre Fouassier^d

^aInstitut de Science des Matériaux de Mulhouse IS2M – LRC CNRS 7228 – ENSCMu-UHA, 15, rue Jean Starcky, 68057 Mulhouse Cedex, France

^bLaboratoire de Matériaux, Catalyse, Environnement et Méthodes analytiques

(MCEMA-CHAMSI), EDST, Université Libanaise, Campus Hariri, Hadath, Beyrouth, Lebanon

^cAix-Marseille Université, CNRS, Institut de Chimie Radicalaire, UMR 7273, F-13397 Marseille, France

^dUHA-ENSCMu, 3 rue Alfred Werner, 68093 Mulhouse, France

Eur Polym J 49 (2013) 567

