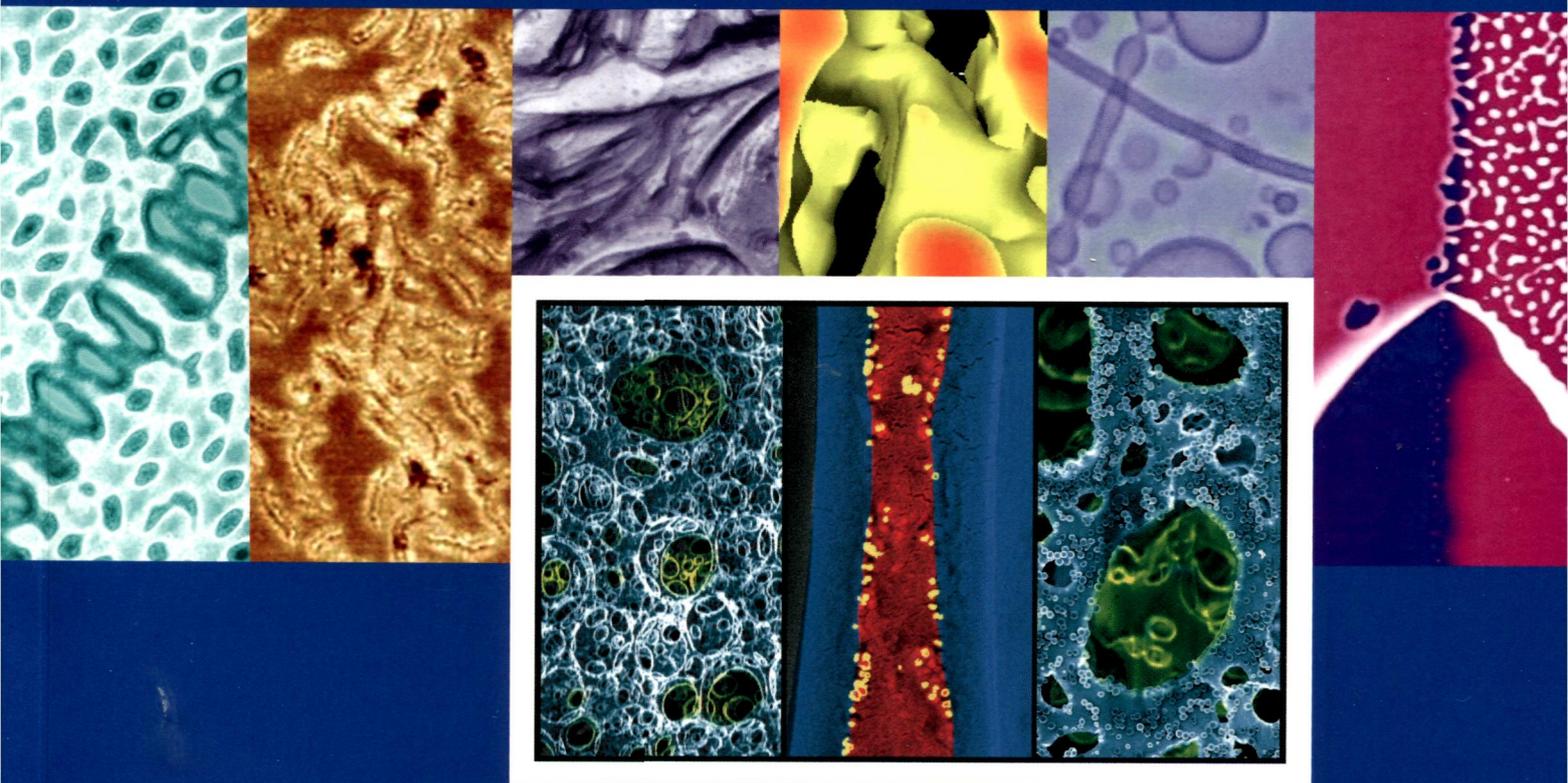


polymer



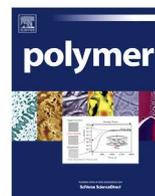
Special Issue: Porous Polymers

Guest Editor

Michael S. Silverstein

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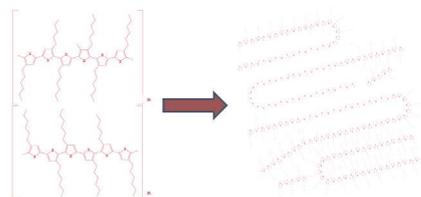
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Cameron S. Lee^a, Mark D. Dadmun^{a,b,*}

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^b Chemical Sciences Division, Oak Ridge National Laboratory, 1 Bethel Valley Rd., Oak Ridge, TN 37831, United States



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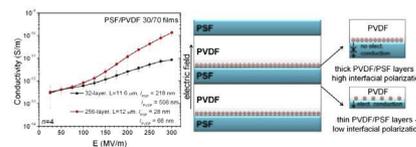
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^c Department of Physical and Life Sciences, Fisk University, Nashville, TN 37208, USA

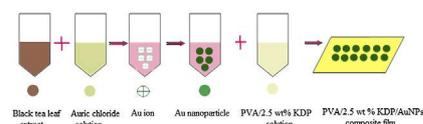
^d LEPMI, UMR 5279, CNRS, Université de Savoie, F-73376 Le Bourget Du Lac Cedex, France

^e Department of Physics, Case Western Reserve University, Cleveland, OH 44106-7079, USA



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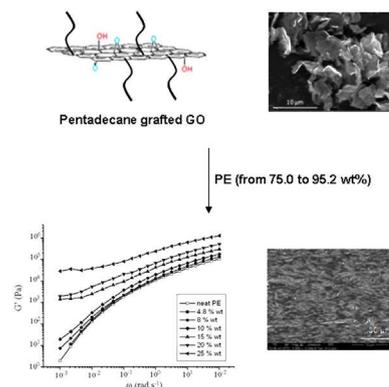
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Md Jamal Uddin^{a,b}, Tapas Ranjan Midya^b, Bijaykrishna Chaudhuri^{a,c,*}, Hironobu Sakata^d^aDepartment of Solid State Physics, Indian Association for the Cultivation of Science, Jadavpur, Kolkata 700032, India^bDepartment of Physics, Jadavpur University, Kolkata 700032, India^cDepartment of Physics, National Institute of Technology, Rourkela, Orissa 769008, India^dDepartment of Optical and Imaging Science & Technology, School of Engineering, Tokai University, Kanagawa 2591292, Japan

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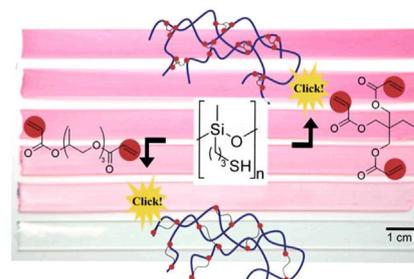
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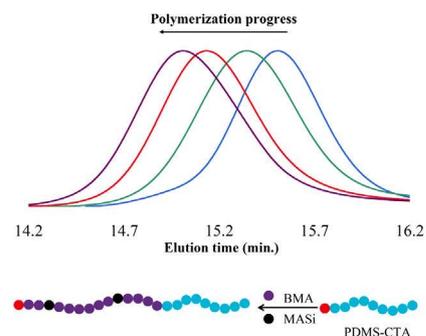
Kai U. Claussen^a, Reiner Giesa^{a,b}, Hans-Werner Schmidt^{a,b,c,*}^aMacromolecular Chemistry I, University of Bayreuth, 95440 Bayreuth, Germany^bBayreuth Institute of Macromolecular Research (BIMF), University of Bayreuth, 95440 Bayreuth, Germany^cBayreuth Center for Colloids and Interfaces (BZKG), University of Bayreuth, 95440 Bayreuth, Germany

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The Hy Duong, Christine Bressy^{*}, André Margaillan

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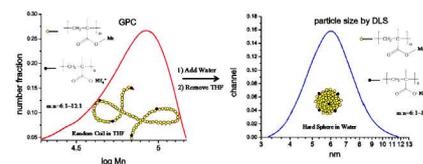


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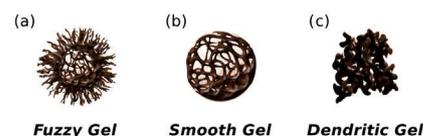
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D.W. Holley^a, M. Ruppel^b, J.W. Mays^{a,b}, V.S. Urban^c, D. Baskaran^{a,*}

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^b Chemical Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA

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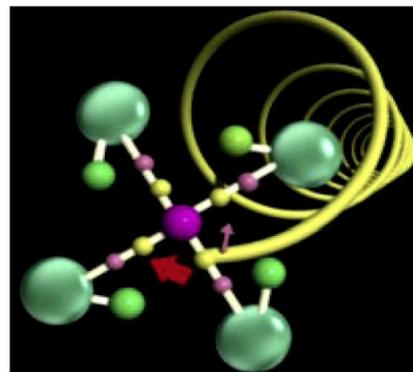


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Tomokazu Iseki, Kohsuke Kawabata, Hirotosugu Kawashima, Hiromasa Goto*

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Role of end-groups and catalyst in polyester cyclodepolymerization and cycle-chain equilibria

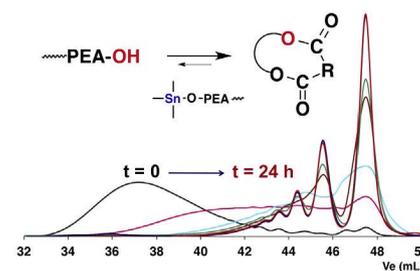
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Slim Salhi^a, Martine Tessier^{b,c}, Rachid El Gharbi^a, Alain Fradet^{b,c,*}

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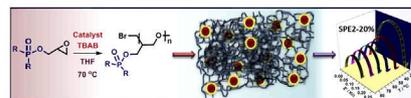


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Heeralal Vignesh Babu, Krishnamurthi Muralidharan*

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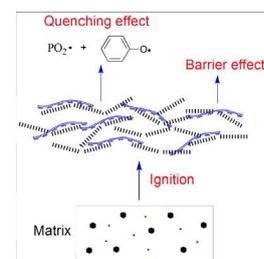


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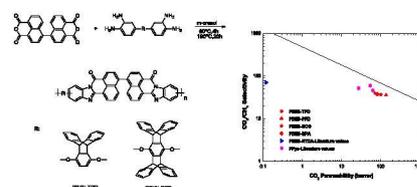
Lijun Qian*, Fafei Feng, Shuo Tang

Department of Materials Science & Engineering, Beijing Technology and Business University, No. 11, Fucheng Road, Haidian District, Beijing 100048, PR China



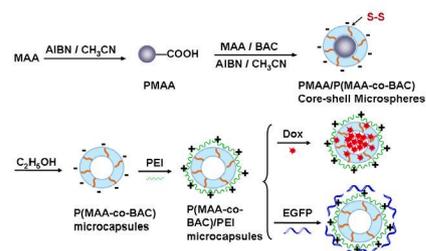
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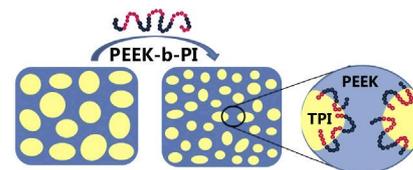
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^aAlan G. MacDiarmid Institute, College of Chemistry, Jilin University, Changchun 130012, People's Republic of China

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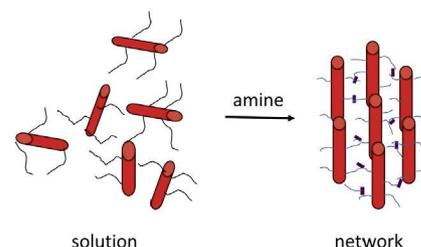


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Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovský Sq. 2, 162 06 Prague 6, Czech Republic



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Dario Cavallo^{a,*}, Lorenza Gardella^a, Giuseppe Portale^b, Alejandro J. Müller^{c,d,e}, Giovanni C. Alfonso^a

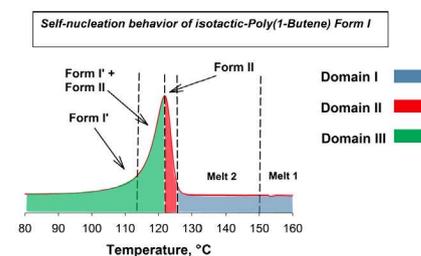
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^bNetherlands Organization for Scientific Research (NWO), DUBBLE CRG, European Synchrotron Radiation Facility, BP 220, F-38043 Grenoble Cedex, France

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Free volume in PEP-silica nanocomposites with varying molecular weight

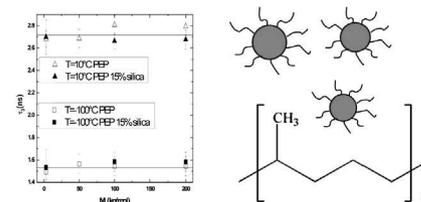
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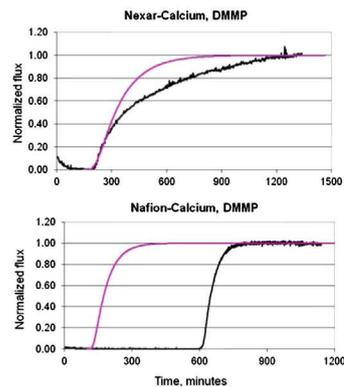


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Nathaniel S. Schneider*, Walter S. Zukas, Natalie L. Pomerantz

Department of the Army, US Army Research, Development and Engineering Command, WarSTAR Directorate, Natick Soldier Center, 15 Kansas Street, Natick, MA 01760, USA

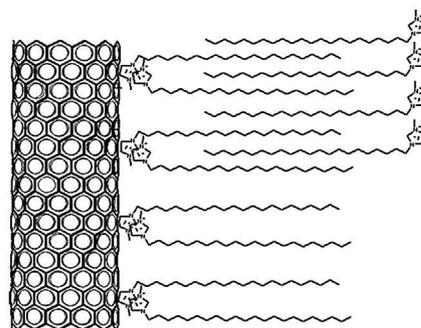


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Hongyang Ma, Xuming Chen, Benjamin S. Hsiao*, Benjamin Chu**

Department of Chemistry, Stony Brook University, Stony Brook, NY 11794-3400, USA



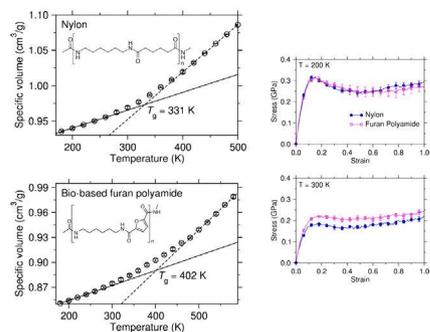
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In-Chul Yeh^a, B. Christopher Rinderspacher^a, Jan W. Andzelm^{a,*}, LaShonda T. Cureton^b, John La Scala^{b,**}

^aMacromolecular Science & Technology Branch, Materials & Manufacturing Science Division, U.S. Army Research Laboratory, Aberdeen Proving Ground, MD 21005, USA

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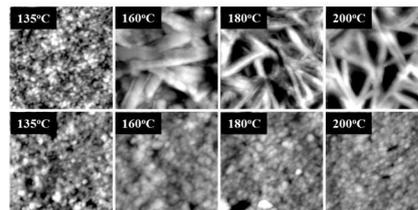


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Si-Woo Hahm, Donyoung Kim, Dahl-Young Khang*

Department of Materials Science and Engineering, Yonsei University, Seoul 120-749, Republic of Korea



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Rintaro Inoue^{a,*}, Toshiji Kanaya^{a,*}, Yanming Hu^b, Toshio Masuda^{c,d,**}, Koji Nishida^a, Osamu Yamamuro^e

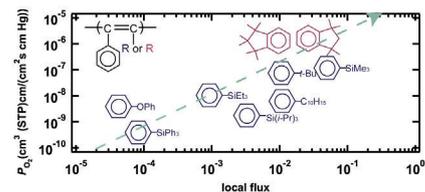
^a Institute for Chemical Research, Kyoto University, Uji, Kyoto 611-0011, Japan

^b Department of Polymer Materials, School of Chemical Engineering, Dalian University of Technology, Dalian 116024, China

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^e Neutron Scattering Laboratory, Institute for Solid State Physics, The University of Tokyo, Kashiwa, Chiba 277-8581, Japan



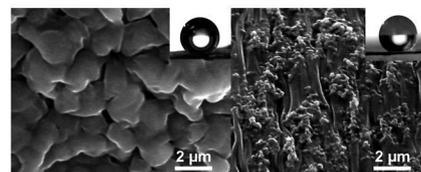
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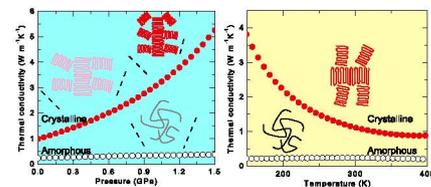


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Junchun Yu, Bertil Sundqvist, Bounphanh Tonpheng, Ove Andersson^{*}

Department of Physics, Umeå University, 901 87 Umeå, Sweden



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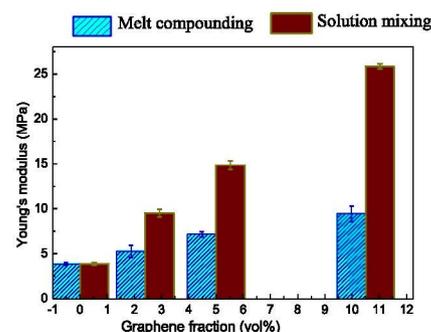
Sherif Araby^{a,c}, Qingshi Meng^a, Liqun Zhang^b, Hailan Kang^b, Peter Majewski^a, Youhong Tang^d, Jun Ma^{a,*}

^a School of Engineering, University of South Australia, SA 5095, Australia

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Markéta Ilčíková^a, Miroslav Mrlík^{b,c}, Tomáš Sedláček^{b,c}, Dušan Chorvát^d, Igor Krupa^{a,e}, Miroslav Šlouf^f, Kaloian Koynov^g, Jaroslav Mosnáček^{a,*}

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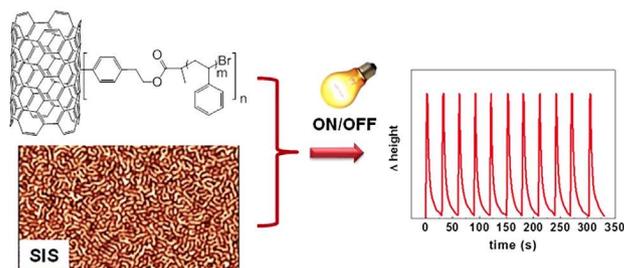
^c Polymer Centre, Faculty of Technology, Tomas Bata University in Zlin, nam. T.G. Masaryka 275, 762 72 Zlin, Czech Republic

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^g Max Planck Institute for Polymer Research, Ackermannweg 10, D-55128 Mainz, Germany



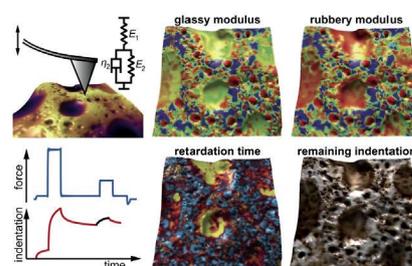
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Christoph Braunsmann^a, Roger Proksch^{b,*}, Irène Revenko^b, Tilman E. Schäffer^{a,*}

^a Institute of Applied Physics and LISA+, University of Tübingen, Auf der Morgenstelle 10, 72076 Tübingen, Germany

^b Asylum Research, An Oxford Instruments Company, 6310 Hollister Ave, Santa Barbara, CA 93117, USA



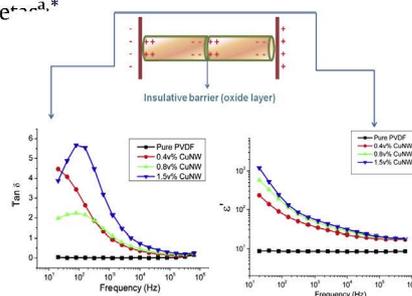
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Aline Bruna da Silva^a, Mohammad Arjmand^b, Uttandaraman Sundararaj^b, Rosario Elida Suman Bre^{a,c,*}

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Thermal analysis of disulfonated poly(arylene ether sulfone) plasticized with poly(ethylene glycol) for membrane formation

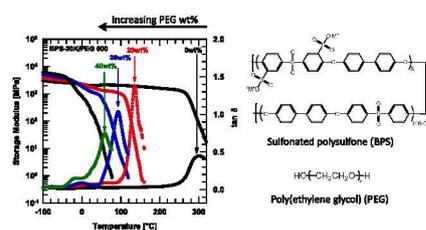
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Hee Jeung Oh^a, Benny D. Freeman^a, James E. McGrath^b, Chang Hyun Lee^c, Donald R. Paul^{a,*}

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^b Virginia Polytechnic Institute and State University, Department of Chemistry, Blacksburg, VA 24061, USA

^c Dankook University, Department of Energy Engineering, Cheonan, South Korea



Forced assembly by multilayer coextrusion to create oriented graphene reinforced polymer nanocomposites

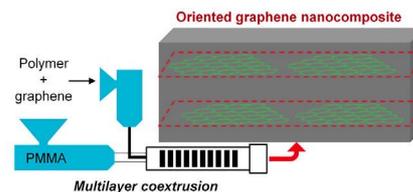
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Xiguang Li^{a,b}, Gregory B. McKenna^{a,*}, Guillaume Miquelard-Garnier^{b,*}, Alain Guinault^b, Cyrille Sollogoub^b, Gilles Regnier^b, Artur Rozanski^c

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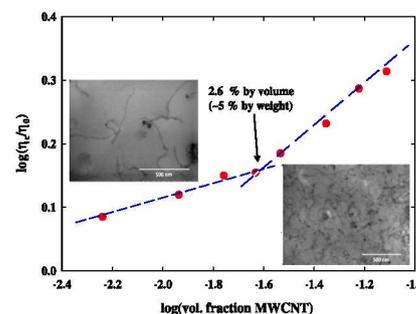
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S.K. Peddini^a, C.P. Bosnyak^b, N.M. Henderson^b, C.J. Ellison^a, D.R. Paul^{a,*}

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Transition of spherulite morphology in a crystalline/crystalline binary blend of biodegradable microbial polyesters

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Taizo Kabe^{a,b,c}, Tomoko Sato^a, Ken-ichi Kasuya^d, Takaaki Hikima^e, Masaki Takata^b, Tadahisa Iwata^{a,b,*}

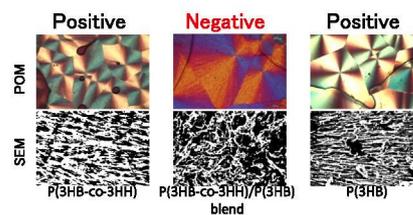
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NMR studies of thermo-responsive behavior of an amphiphilic poly(asparagine) derivative in water

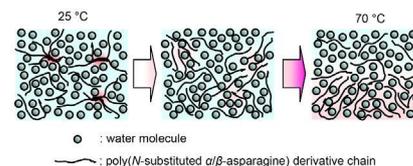
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Eiji Watanabe^a, Gregory S. Boutis^b, Hiroko Sato^c, Sokei Sekine^c, Tetsuo Asakura^{a,*}

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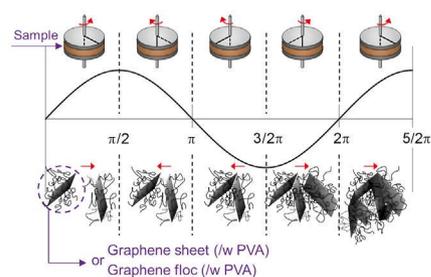


Oscillatory shear induced gelation of graphene-poly(vinyl alcohol) composite hydrogels and rheological premonitor of ultra-light aerogels

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Ji Eun Kim, Heon Sang Lee*

Department of Chemical Engineering, Dong-A Univ., 840, Hadan-dong, Saha-Gu, Busan 604-714, Republic of Korea

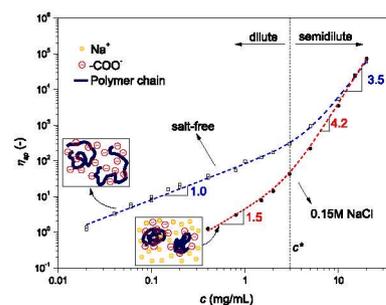


Rheological studies of hyaluronan solutions based on the scaling law and constitutive models

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Fengyuan Yu, Fei Zhang, Tu Luan, Zinan Zhang, Hongbin Zhang*

Advanced Rheology Institute of SJTU, Department of Polymer Science and Engineering, School of Chemistry and Chemical Engineering, Shanghai Jiao Tong University, Shanghai 200240, China



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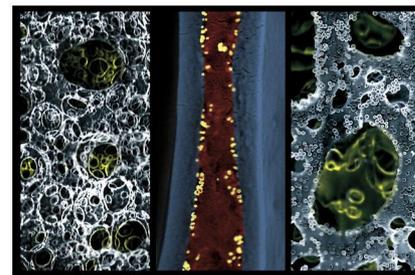
FEATURE ARTICLE

Emulsion-templated porous polymers: A retrospective perspective

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Michael S. Silverstein

Department of Materials Science and Engineering, Technion – Israel Institute of Technology, Haifa 32000, Israel



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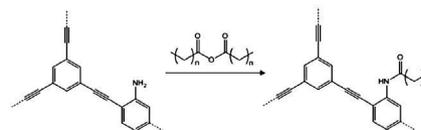
Post-synthetic modification of conjugated microporous polymers

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Thanchanok Ratvijitvech^a, Robert Dawson^a, Andrea Laybourn^a, Yaroslav Z. Khimyak^b, Dave J. Adams^{a,*}, Andrew I. Cooper^{a,*}

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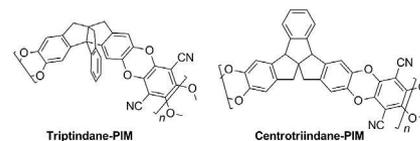
^bSchool of Pharmacy, University of East Anglia, Norwich Research Park, Norwich NR4 7TJ, UK



Centrotriindane- and triptindane-based polymers of intrinsic microporosity

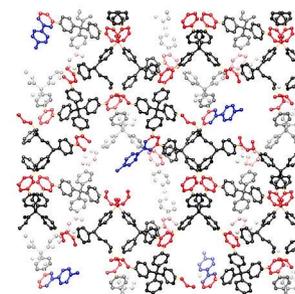
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James Vile, Mariolino Carta, C. Grazia Bezzu, Benson M. Kariuki, Neil B. McKeown*

School of Chemistry, Cardiff University, Cardiff, UK**Functionalization of 3D covalent organic frameworks using monofunctional boronic acids**

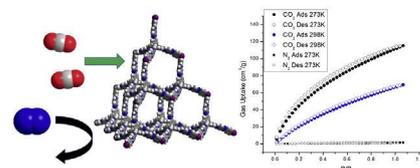
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Spencer D. Brucks, David N. Bunck, William R. Dichtel*

Baker Laboratory, Department of Chemistry and Chemical Biology, Cornell University, Ithaca, NY 14853-1301, USA**Stable benzimidazole-incorporated porous polymer network for carbon capture with high efficiency and low cost**

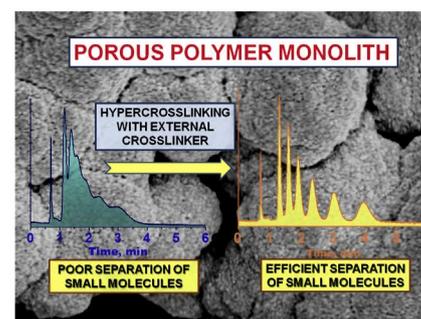
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Muwei Zhang, Zachary Perry, Jinhee Park, Hong-Cai Zhou*

Department of Chemistry, Texas A&M University, College Station, TX 77842, USA**A new approach to the preparation of large surface area poly(styrene-co-divinylbenzene) monoliths via knitting of loose chains using external crosslinkers and application of these monolithic columns for separation of small molecules**

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Fernando Maya, Frantisek Svec*

The Molecular Foundry, E.O. Lawrence Berkeley National Laboratory, Berkeley, CA 94720, USA

Designing block copolymer architectures for targeted membrane performance

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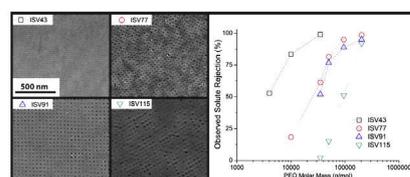
Rachel Mika Dorin^a, William A. Phillip^b, Hiroaki Sai^a, Jörg Werner^c, Menachem Elimelech^d, Ulrich Wiesner^{a,*}

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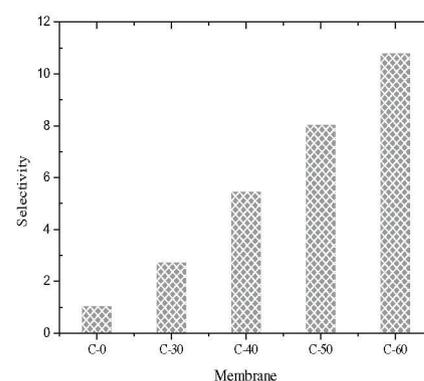


Novel ultrafiltration membranes with adjustable charge density based on sulfonated poly(arylene ether sulfone) block copolymers and their tunable protein separation performance

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Mahendra Kumar, Mathias Ulbricht*

Lehrstuhl für Technische Chemie II, Universität Duisburg-Essen, 45117 Essen, Germany

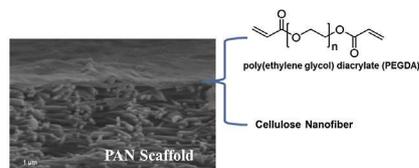


Nanofibrous ultrafiltration membranes containing cross-linked poly(ethylene glycol) and cellulose nanofiber composite barrier layer

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Zhe Wang, Hongyang Ma, Benjamin S. Hsiao*, Benjamin Chu**

Department of Chemistry, Stony Brook University, Stony Brook, NY 11794-3400, United States

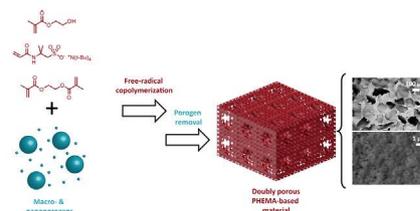


Engineering functional doubly porous PHEMA-based materials

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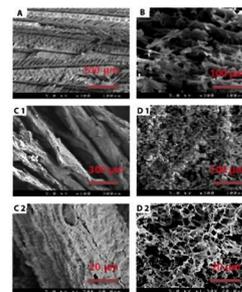
Benjamin Le Droumaguet, Romain Lacombe, Hai-Bang Ly, Mohamed Guerrouache, Benjamin Carbonnier, Daniel Grande*

Institut de Chimie et des Matériaux Paris-Est, UMR 7182 CNRS – Université Paris-Est Créteil Val-de-Marne, 2 rue Henri Dunant, 94320 Thiais, France

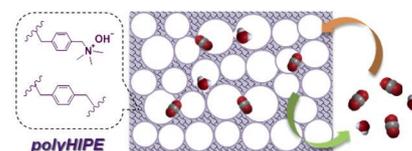


Facile fabrication of poly(vinyl alcohol) gels and derivative aerogels

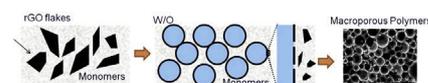
pp 380–384

Hong-Bing Chen^{a,b}, Erin Hollinger^b, Yu-Zhong Wang^{a,*}, David A. Schiraldi^{b,*}^aCenter for Degradable and Flame-Retardant Polymeric Materials, College of Chemistry, State Key Laboratory of Polymer Materials Engineering, Sichuan University, Chengdu 610064, China^bDepartment of Macromolecular Science and Engineering, Case Western Reserve University, Cleveland, OH 44106-7202, USA**Porous polymers prepared via high internal phase emulsion polymerization for reversible CO₂ capture**

pp 385–394

Hongkun He^a, Wenwen Li^a, Melissa Lamson^a, Mingjiang Zhong^a, Dominik Konkolewicz^a, Chin Ming Hui^a, Karin Yaccato^b, Timothy Rappold^b, Glenn Sugar^b, Nathaniel E. David^b, Krishnan Damodaran^c, Sittichai Natesakhawat^{d,e}, Hunaid Nulwala^{a,d}, Krzysztof Matyjaszewski^{a,*}^aCenter for Macromolecular Engineering, Department of Chemistry, Carnegie Mellon University, 4400 Fifth Avenue, Pittsburgh, PA 15213, USA^bKilimanjaro Energy, Inc., 630 Tennessee Street, San Francisco, CA 94107, USA^cDepartment of Chemistry, University of Pittsburgh, 219 Parkman Avenue, Pittsburgh, PA 15260, USA^dNational Energy Technology Laboratory, United States Department of Energy, P.O. Box 10940, Pittsburgh, PA 15236, USA^eDepartment of Chemical and Petroleum Engineering, University of Pittsburgh, 3700 O'Hara Street, Pittsburgh, PA 15260, USA**Macroporous polymer nanocomposites synthesised from high internal phase emulsion templates stabilised by reduced graphene oxide**

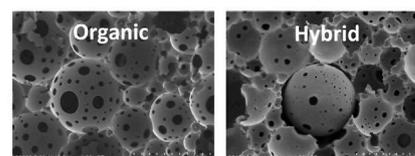
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Ling L. Ching Wong^{a,b}, Suelen Barg^c, Angelika Menner^b, Paula do Vale Pereira^c, Goki Eda^d, Manish Chowalla^e, Eduardo Saiz^c, Alexander Bismarck^{a,b,*}^aPolymer & Composite Engineering (PaCE) Group, Department of Chemical Engineering, Imperial College London, South Kensington Campus, London SW7 2AZ, UK^bPolymer & Composite Engineering (PaCE) Group, Institute of Materials Chemistry & Research, Faculty of Chemistry, University of Vienna, Währingerstr. 42, A-1090 Vienna, Austria^cDepartment of Materials, Centre for Advanced Structural Ceramics (CASC), Imperial College London, South Kensington Campus, London SW7 2AZ, UK^dPhysics Department, National University of Singapore, Singapore 117542, Singapore^eDepartment of Materials Science and Engineering, The State University of New Jersey, NJ 08854, USA**Synthesis of polymer–silica hybrid polyHIPEs by double *in situ* polymerization of concentrated water in oil emulsion**

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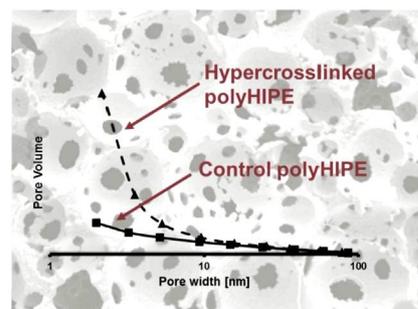
Fabrice Audouin^{*}, Andreas Heise^{*}

Dublin City University, School of Chemical Sciences, Glasnevin, Dublin 9, Ireland



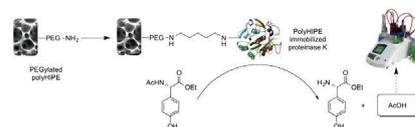
Post polymerisation hypercrosslinking of styrene/divinylbenzene poly(HIPE)s: Creating micropores within macroporous polymer

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Urška Sevšek^a, Jiří Brus^b, Karel Jeřábek^c, Peter Krajnc^{a,*}^a University of Maribor, Faculty of Chemistry and Chemical Engineering, PolyOrgLab, Smetanova 17, SI-2000 Maribor, Slovenia^b Institute of Macromolecular Chemistry of the ASCR, v.v.i., Heyrovského náměstí 2, CZ-162 06 Prague, Czech Republic^c Institute of Chemical Process Fundamentals of the ASCR, v.v. i., Rozvojova 2/135, CZ-165 02 Prague, Czech Republic

Amine-functionalization of glycidyl methacrylate-containing emulsion-templated porous polymers and immobilization of proteinase K for biocatalysis

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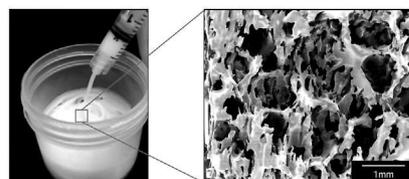
Scott D. Kimmins^{a,b}, Paul Wyman^c, Neil R. Cameron^{a,b,*}^a Department of Chemistry, Durham University, South Road, Durham DH1 3LE, UK^b Biophysical Sciences Institute, Durham University, South Road, Durham DH1 3LE, UK^c DSM Ahead B.V., Functional Coatings & Materials, Urmonderbaan 22, 6167 RD Geleen, Netherlands

Injectable polyMIPE scaffolds for soft tissue regeneration

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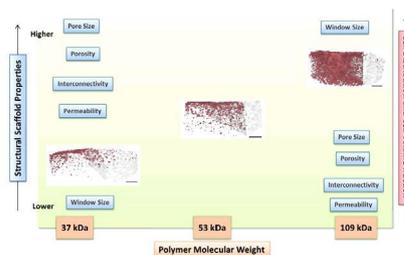
Robert S. Moglia, Jennifer L. Robinson, Andrea D. Muschenborn, Tyler J. Touchet, Duncan J. Maitland, Elizabeth Cosgriff-Hernandez^{*}

Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843-3120, USA



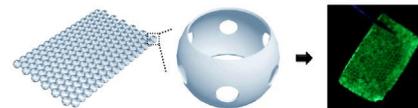
Interconnectivity and permeability of supercritical fluid-foamed scaffolds and the effect of their structural properties on cell distribution

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Y. Reinwald^a, R.K. Johal^{a,b}, A.M. Ghaemmaghami^b, F.R.A.J. Rose^a, S.M. Howdle^c, K.M. Shakesheff^{a,*}^a Division of Drug Delivery and Tissue Engineering, School of Pharmacy, Centre for Biomolecular Sciences, University of Nottingham, University Park, Nottingham NG7 2RD, UK^b Division of Immunology, Faculty of Medicine, Queen's Medical Centre, University of Nottingham, Nottingham NG7 2UH, UK^c School of Chemistry, University of Nottingham, Nottingham NG7 2RD, UK

Fabrication of cell patches using biodegradable scaffolds with a hexagonal array of interconnected pores (SHAIPs)

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