

Polymer Vol. 49, No. 17, 11 August 2008

Contents

FEATURE ARTICLE

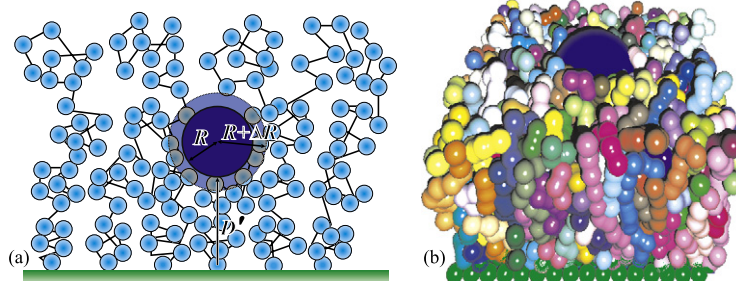
Excess free energy of nanoparticles in a polymer brush

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pp 3611–3618



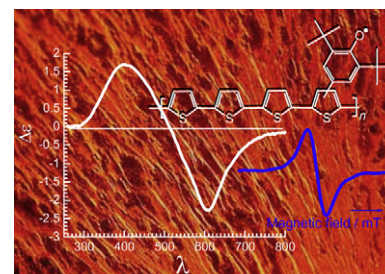
POLYMER COMMUNICATIONS

Magneto-optically active polythiophene derivatives bearing a stable radical group from achiral monomers by polycondensation in cholesteric liquid crystal

Hiromasa Goto^{*}

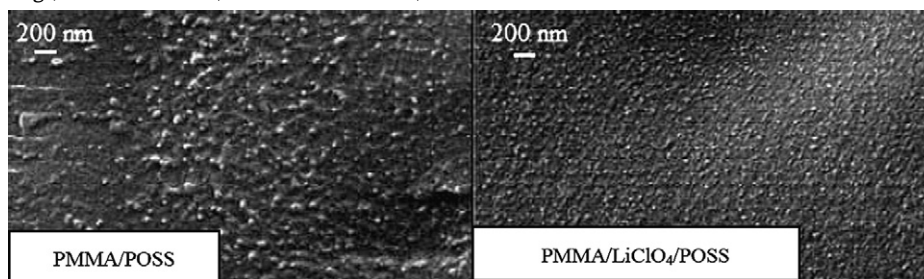
pp 3619–3624

Graduate School of Pure and Applied Sciences, Institute of Materials Science, University of Tsukuba, Tsukuba, Ibaraki 305-8573, Japan



Effect of LiClO₄ on the thermal and morphological properties of organic/inorganic polymer hybrids

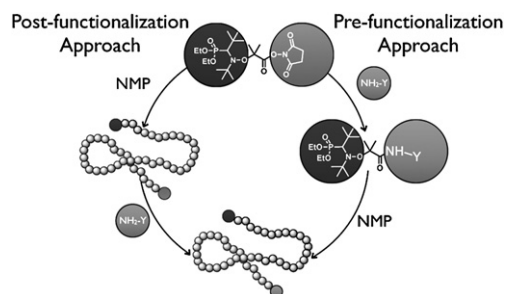
pp 3625–3628

Ying-Chieh Yen^a, Yun-Sheng Ye^a, Chih-Chia Cheng^a, Hsiu-Mei Chen^b, Hwo-Shuenn Sheu^c, Feng-Chih Chang^{a,*}^a Institute of Applied Chemistry, National Chia-Tung University, Hsin-Chu, Taiwan, ROC^b Material and Chemical Research Laboratories, Industrial Technology Research Institute, Chutung, Taiwan, ROC^c National Synchrotron Radiation Research Center, Hsinchu Science Park, Taiwan, ROC**POLYMER PAPERS****High-resolution ¹⁹F and ¹H NMR of a vinylidene fluoride telomer**

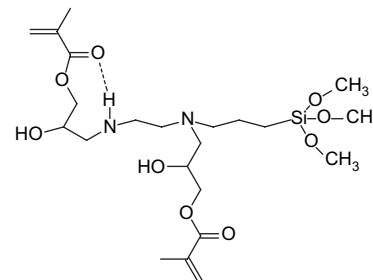
pp 3629–3638

Philip Wormald^{a,*}, Bruno Ameduri^b, Robin K. Harris^c, Paul Hazendonk^d^a School of Chemistry, University of St Andrews, Purdie Building, St Andrews KY16 9ST, UK^b Ingénierie et Architectures Macromoléculaires, Institut Charles Gerhardt – UMR(CNRS) 5253, Ecole Nat Sup de Chimie de Montpellier, 8 Rue de l'Ecole Normale, F-34296 Montpellier Cedex, France^c Department of Chemistry, University Science Laboratories, South Road, Durham, DH1 3LE, UK^d Department of Chemistry and Biochemistry, 4401 University Drive, University of Lethbridge, Alberta, T1K 3M4 Canada**SG1-based alkoxyamine bearing a N-succinimidyl ester: A versatile tool for advanced polymer synthesis**

pp 3639–3647

Jérôme Vinas^{a,b}, Nelly Chagneux^a, Didier Gigmes^{a,*}, Thomas Trimaille^a, Arnaud Favier^a, Denis Bertin^a^a Universités d'Aix-Marseille I, II et III-CNRS, Laboratoire Chimie Provence, UMR 6264, Equipe Chimie Radicalaire Organique et Polymères de Spécialité, case 542, Av. Escadrille Normandie-Niemen, 13397 Marseille Cedex 20, France^b Laboratoire Léon Brillouin, C.E.A Saclay, 91191 Gif-sur-Yvette Cedex, France**Silsesquioxane functionalized with methacrylate and amine groups as a crosslinker/co-initiator for the synthesis of hydrogels by visible-light photopolymerization**

pp 3648–3653

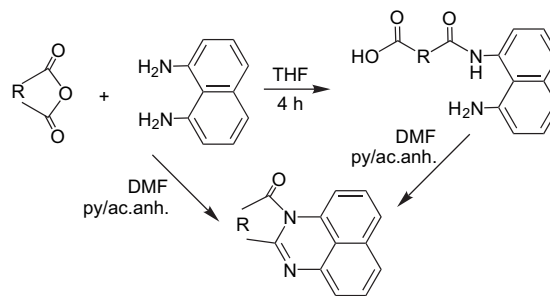
María L. Gómez^a, Diana P. Fasce^a, Roberto J. J. Williams^{a,*}, Rosa Erra-Balsells^b, M. Kaniz Fatema^c, Hiroshi Nonami^c^a Institute of Materials Science and Technology (INTEMA), University of Mar del Plata and National Research Council (CONICET), J.B. Justo 4302, 7600 Mar del Plata, Argentina^b CIHIDECAR-CONICET, Department of Organic Chemistry, Faculty of Exact Sciences, University of Buenos Aires, Pab. 2, Ciudad Universitaria, 1428 Buenos Aires, Argentina^c Plant Biophysics/Biochemistry Research Laboratory, College of Agriculture, Ehime University, Matsuyama 790-8566, Japan

Highly effective low temperature route to pyrroloperimidines synthesis and their copolymerization with styrene and methyl methacrylate

pp 3654–3662

N. Vargas Alfredo^a, D. Likhatchev^a, S. Barrientes Ramirez^{a,b}, J. Revilla Vazquez^b, G. Cedillo Valverde^a, L. Alexandrova^{a,*}

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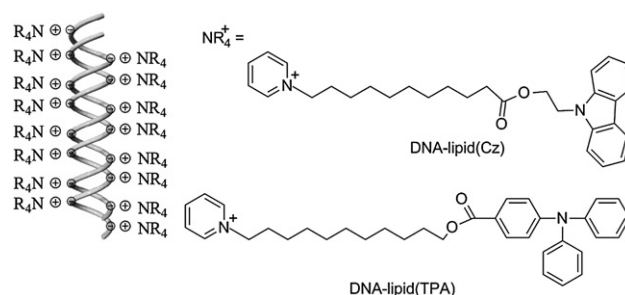


DNA–lipid complexes carrying carbazole and triphenylamine moieties: Synthesis, and chiroptical and photoelectronic properties

pp 3663–3670

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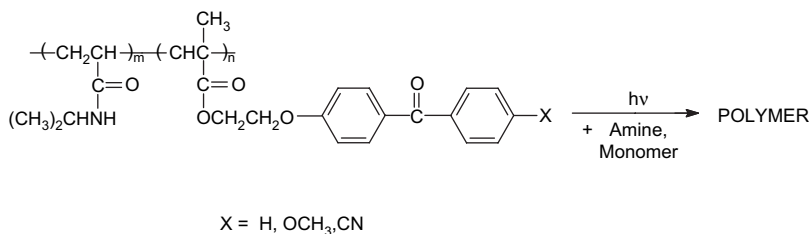


Synthesis and photoinitiation activity of macroinitiators comprising benzophenone derivatives

pp 3671–3676

A.M. Rufs^a, A. Valdebenito^a, M.C. Rezende^a, S. Bertolotti^b, C. Previtali^b, M.V. Encinas^{a,*}

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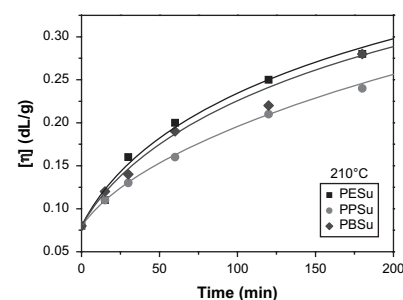


Synthesis of poly(alkylene succinate) biodegradable polyesters, Part II: Mathematical modelling of the polycondensation reaction

pp 3677–3685

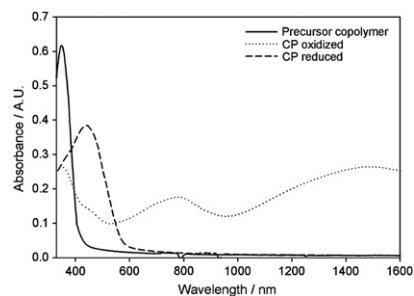
D. N. Bikiaris, D. S. Achilias^{*}

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Photopatterned electrochromic conjugated polymer films via precursor approach

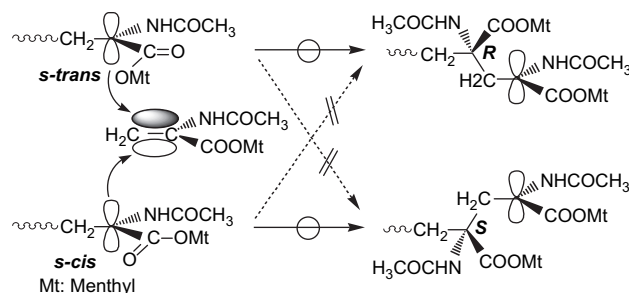
pp 3686–3692

Arvind Kumar^a, Sung-Yeon Jang^a, Javier Padilla^b, Toribio F. Otero^b, Gregory A. Sotzing^{a,*}^a Department of Chemistry and Polymer Program, University of Connecticut, North Eagleville Road, Storrs, CT 06269, USA^b Center for Electrochemistry and Intelligent Materials, Polytechnic University of Cartagena, C/Carlos III s/n, Aulario General II, Campus Alfonso XIII, 30203 Cartagena, Spain**Tacticity control by conformational isomerization in free radical polymerization of acrylate**

pp 3693–3701

Hitoshi Tanaka^{*}, Miki Niwa

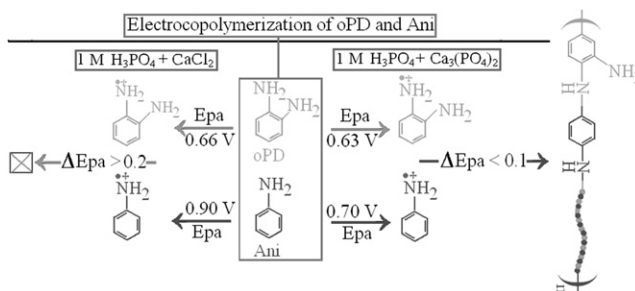
Institute of Technology and Science, University of Tokushima, Minamijosanjima-cho, Tokushima 770-8506, Japan

**Electrocopolymerization of aniline and ortho-phenylenediamine via facile negative shift of polyaniline redox peaks**

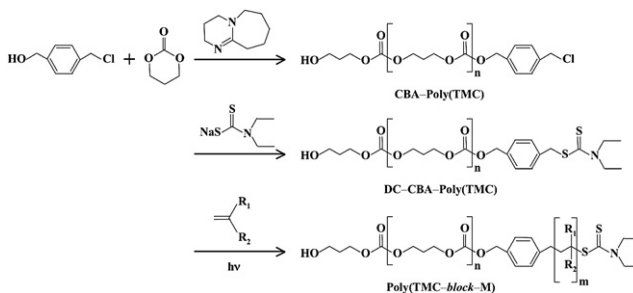
pp 3702–3708

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**Disparate polymerization facilitates the synthesis of versatile block copolymers from poly(trimethylene carbonate)**

pp 3709–3715

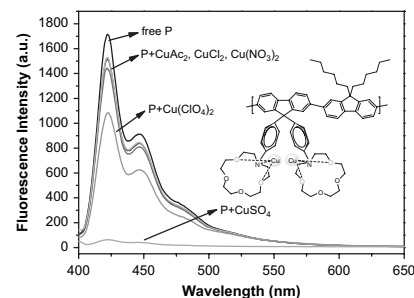
Junji Watanabe^{a,b}, Suzuka Amemori^c, Mitsuru Akashi^{a,b,c,*}^a Department of Applied Chemistry, Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita, Osaka 565-0871, Japan^b 21st Century COE for "Center for Integrated Cell and Tissue Regulation", Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita, Osaka 565-0871, Japan^c Division of Applied Science, School of Engineering, Osaka University, 2-1 Yamada-oka, Suita, Osaka 565-0871, Japan

Novel fluorene-based copolymer with pendant aza-crown ether: Highly sensitive and specific detection for CuSO₄ and concurrent effect of anions

pp 3716–3721

Linna Zhu, Chuluo Yang*, Cheng Zhong, Li Xu, Jingui Qin

Department of Chemistry, Hubei Key Laboratory on Organic and Polymeric Optoelectronic Materials, Wuhan University, Wuhan 430072, PR China



Soluble functional polyacetylenes for optical limiting: Relationship between optical limiting properties and molecular structure

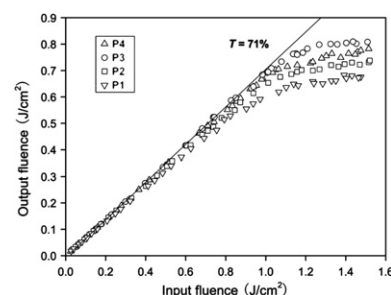
pp 3722–3730

Xinyan Su^{a,b}, Hongyao Xu^{a,b,*}, Junyi Yang^c, Naibo Lin^a, Yinglin Song^c

^a College of Material Science and Engineering and State Key Laboratory for Modification of Chemical Fibers and Polymer Materials, Donghua University, Shanghai 201620, China

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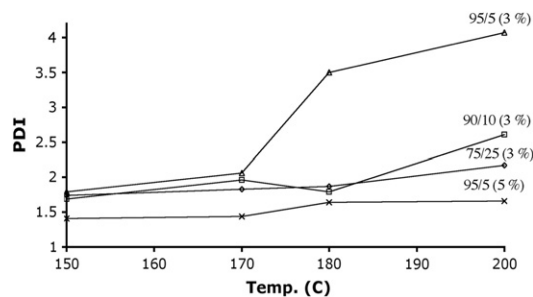
Branched poly(arylene ether ketone)s with tailored thermal properties: Effects of AB/AB₂ ratio, core (B₃) percentage, and reaction temperature

pp 3731–3736

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^b Nanostructured and Biological Materials Branch, Materials and Manufacturing Directorate, AFRL/RXBN, Air Force Research Laboratory, 2491 Hobson Way, Wright–Patterson Air Force Base, Dayton, OH 45433–7750, United States



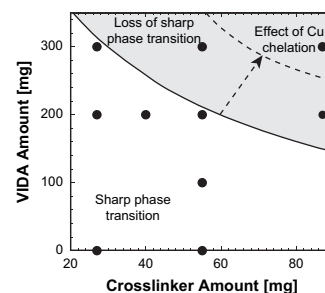
Equilibrium swelling behavior of thermally responsive metal affinity hydrogels, Part I: Compositional effects

pp 3737–3743

Ganesh Iyer^a, L.M. Viranga Tillekeratne^b, Maria R. Coleman^a, Arunan Nadarajah^{a,*}

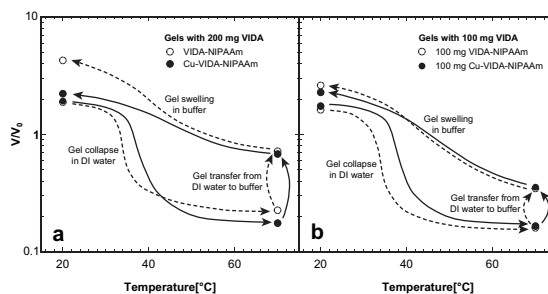
^a Department of Chemical and Environmental Engineering, University of Toledo, Toledo, Ohio 43606, USA

^b Department of Medicinal and Biological Chemistry, University of Toledo, Toledo, Ohio 43606, USA

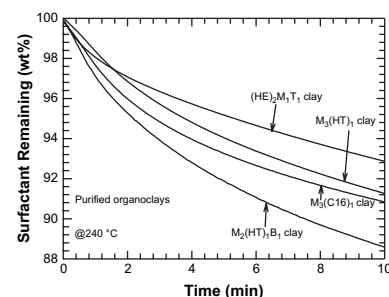


Equilibrium swelling behavior of thermally responsive metal affinity hydrogels, Part II: Solution effects

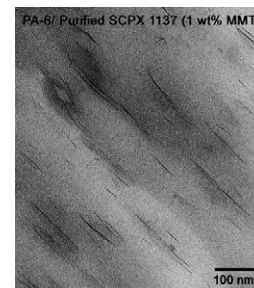
pp 3744–3750

Ganesh Iyer^a, L. M. Viranga Tillekeratne^b, Maria R. Coleman^a, Arunan Nadarajah^{a,*}^a Department of Chemical and Environmental Engineering, University of Toledo, Toledo, OH 43606, USA^b Department of Medicinal and Biological Chemistry, University of Toledo, Toledo, OH 43606, USA**Effect of organoclay purity and degradation on nanocomposite performance, Part 1: Surfactant degradation**

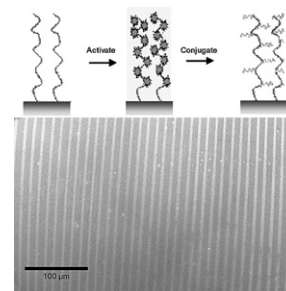
pp 3751–3761

Lili Cui^a, Dimitri M. Khramov^b, Christopher W. Bielawski^b, D. L. Hunter^c, P. J. Yoon^c, D. R. Paul^{a,*}^a Department of Chemical Engineering, Texas Materials Institute, The University of Texas at Austin, Austin, TX 78712, United States^b Department of Chemistry and Biochemistry, Texas Materials Institute, The University of Texas at Austin, Austin, TX 78712, United States^c Southern Clay Products, 1212 Church Street, Gonzales, TX 78629, United States**Effect of organoclay purity and degradation on nanocomposite performance, Part 2: Morphology and properties of nanocomposites**

pp 3762–3769

Lili Cui^a, D.L. Hunter^b, P.J. Yoon^b, D.R. Paul^{a,*}^a Department of Chemical Engineering, Texas Materials Institute, The University of Texas at Austin, Austin, TX 78712, United States^b Southern Clay Products, 1212 Church Street, Gonzales, TX 78629, United States**Reactive patterning via post-functionalization of polymer brushes utilizing disuccinimidyl carbonate activation to couple primary amines**

pp 3770–3779

Steve Diamanti^a, Shafi Arifuzzaman^b, Andrea Elsen^a, Jan Genzer^b, Richard A. Vaia^{a,*}^a Air Force Research Laboratory, Materials and Manufacturing Directorate, 2941 Hobson Way, Wright-Patterson Air Force Base, OH 45433-7750, United States^b North Carolina State University, Department of Chemical and Biomolecular Engineering, 911 Partners Way, Raleigh, NC 27695-7905, United States

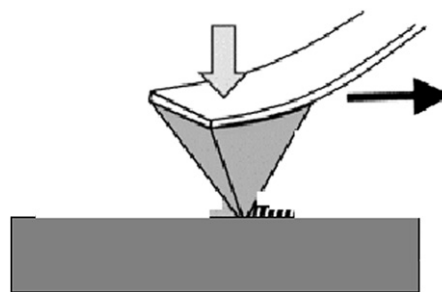
Nano-scale friction of polystyrene in air and in vacuum

Sophie Bistac^{a,*}, Marjorie Schmitt^a, Achraf Ghorbal^a, Enrico Gnecco^b, Ernst Meyer^b

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pp 3780–3784



Hybrid polymer–clay nanocomposites: A mechanical study on gels and multilayered films

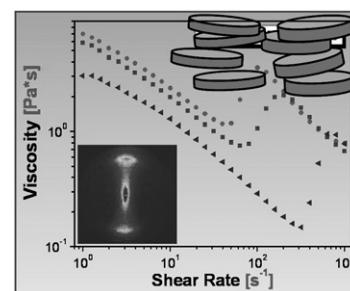
Eduard A. Stefanescu^{a,*}, Cristina Stefanescu^a, William H. Daly^a, Gudrun Schmidt^b, Ioan I. Negulescu^{a,c}

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pp 3785–3794

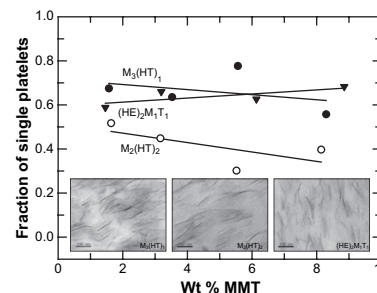


Effect of organoclay structure on morphology and properties of nanocomposites based on an amorphous polyamide

Youngjae Yoo, D. R. Paul^{*}

Department of Chemical Engineering, Texas Materials Institute, The University of Texas at Austin, Austin, TX 78712, United States

pp 3795–3804



Highly dispersed nanosilica–epoxy resins with enhanced mechanical properties

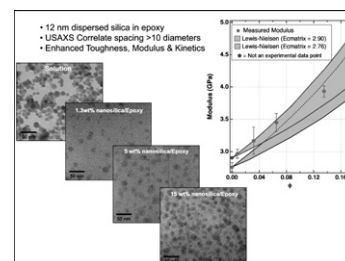
Chenggang Chen^a, Ryan S. Justice^{b,c}, Dale W. Schaefer^c, Jeffery W. Baur^{b,*}

^a University of Dayton Research Institute, 300 College Park, Dayton, OH 45469-0060, United States

^b Air Force Research Laboratory, Materials and Manufacturing Directorate, WPAFB, OH 45433-7750, United States

^c University of Cincinnati, Department of Chemical and Materials Engineering, Cincinnati, OH 45221-0012, United States

pp 3805–3815



Fracture behaviours of in situ silica nanoparticle-filled epoxy at different temperatures

Hui Zhang^a, Long-Cheng Tang^{a,b}, Zhong Zhang^{a,*}, Klaus Friedrich^c, Stephan Sprenger^d

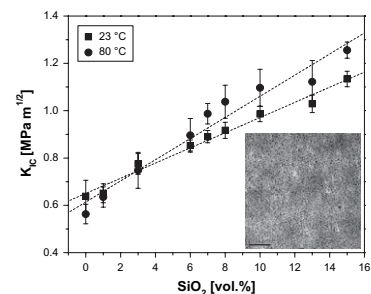
pp 3816–3825

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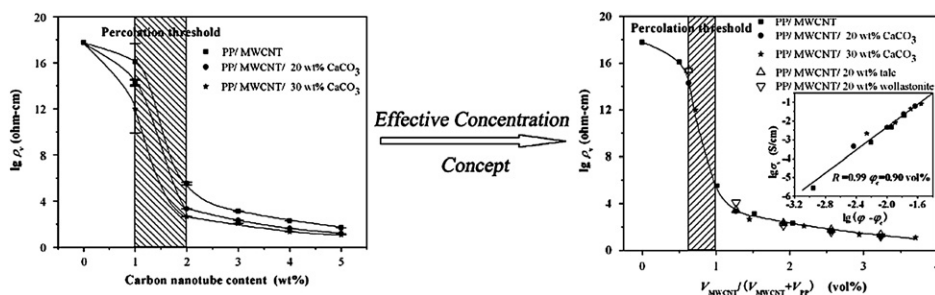


Effect of electrically inert particulate filler on electrical resistivity of polymer/multi-walled carbon nanotube composites

Ha-Da Bao, Zhao-Xia Guo, Jian Yu*

pp 3826–3831

Institute of Polymer Science and Engineering,
Department of Chemical Engineering,
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The further understanding of chain topology effect on the properties of single polymer in good solvent:

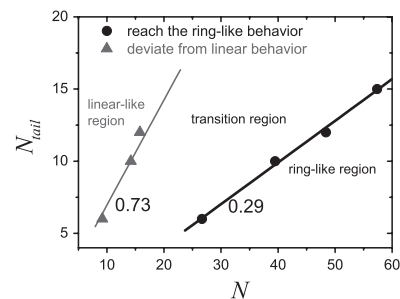
Special behaviors of single tadpole chain

Cui-Liu Fu^a, Zhao-Yan Sun^{a,*}, Hong-Fei Li^a, Li-Jia An^{a,*}, Zhen Tong^b

pp 3832–3837

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OTHER CONTENTS

Corrigendum
Erratum**p 3838**
p 3839

*Corresponding author



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**ELSEVIER**

ISSN 0040-4020

Author Index

- Ab Ghani, S. 3702
 Achilias, D. S. 3677
 Akashi, M. 3709
 Alexandrova, L. 3654
 Alfredo, N. V. 3654
 Ameduri, B. 3629
 Amemori, S. 3709
 An, L.-J. 3832
 Arifuzzaman, S. 3770
 Ashitaka, H. 3663
- Bao, H.-D. 3826
 Baur, J. W. 3805
 Bertin, D. 3639
 Bertolotti, S. 3671
 Bielawski, C. W. 3751
 Bikiaris, D. N. 3677
 Binder, K. 3611
 Bistac, S. 3780
- Chagneux, N. 3639
 Chaivasat, A. 3838
 Chang, F.-C. 3625
 Chen, C. 3805
 Chen, H.-M. 3625
 Cheng, C.-C. 3625
 Coleman, M. R. 3737, 3744
 Cui, L. 3751, 3762
- Daly, W. H. 3785
 Diamanti, S. 3770
 Dimitrov, D. I. 3611
- Elsen, A. 3770
 Encinas, M. V. 3671
 Erra-Balsells, R. 3648
- Fasce, D. P. 3648
 Favier, A. 3639
 Fossum, E. 3731
 Friedrich, K. 3816
 Fu, C.-L. 3832
- Genzer, J. 3770
 Ghorbal, A. 3780
 Gigmès, D. 3639
 Gnecco, E. 3780
 Gómez, M. L. 3648
 Goto, H. 3619
- Guo, X. 3839
 Guo, Z.-X. 3826
- Harris, R. K. 3629
 Hazendonk, P. 3629
 Hunter, D. L. 3751, 3762
- Iyer, G. 3737, 3744
- Jang, S.-Y. 3686
 Justice, R. S. 3805
- Kaniz Fatema, M. 3648
 Khramov, D. M. 3751
 Kobayashi, H. 3838
 Kumar, A. 3686
- Li, H.-F. 3832
 Likhatchev, D. 3654
 Lin, N. 3722
- Masuda, T. 3663
 Meyer, E. 3780
 Milchev, A. 3611
 Morita, R. 3663
- Nadarajah, A. 3737
 Nadarajah, A. 3744
 Negulescu, I. I. 3785
 Niwa, M. 3693
 Nonami, H. 3648
- Ogata, N. 3663
 Okubo, M. 3838
 Otero, T. F. 3686
- Padilla, J. 3686
 Parsa, A. 3702
 Paul, D. R. 3751, 3762, 3795
 Pinna, M. 3839
 Previtali, C. 3671
- Qin, J. 3716
 Qu, J. 3663
- Ramirez, S. B. 3654
 Rezende, M. C. 3671
 Rufs, A. M. 3671
- Schaefer, D. W. 3805
 Schmidt, G. 3785
 Schmitt, M. 3780
 Sennet, L. 3731
 Sheu, H.-S. 3625
 Song, Y. 3722
 Sotzing, G. A. 3686
 Sprenger, S. 3816
 Stefanescu, C. 3785
 Stefanescu, E. A. 3785
 Su, X. 3722
 Sun, Z.-Y. 3832
 Suzuki, T. 3838
- Tan, L.-S. 3731
 Tanaka, H. 3693
 Tang, L.-C. 3816
 Tillekeratne, L. M. V. 3737, 3744
 Tong, Z. 3832
 Trimaille, T. 3639
- Vaia, R. A. 3770
 Valdebenito, A. 3671
 Valverde, G. C. 3654
 Vazquez, J. R. 3654
 Vinas, J. 3639
- Watanabe, J. 3709
 Williams, R. J. J. 3648
 Wormald, P. 3629
- Xu, H. 3722
 Xu, L. 3716
- Yamada, M. 3838
 Yang, C. 3716
 Yang, J. 3722
 Ye, Y.-S. 3625
 Yen, Y.-C. 3625
 Yoo, Y. 3795
 Yoon, P. J. 3751, 3762
 Yu, J. 3826
- Zhang, H. 3816
 Zhang, Z. 3816
 Zhong, C. 3716
 Zhu, L. 3716
 Zvelindovsky, A. V. 3839