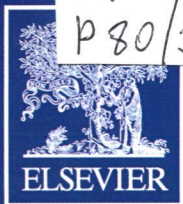
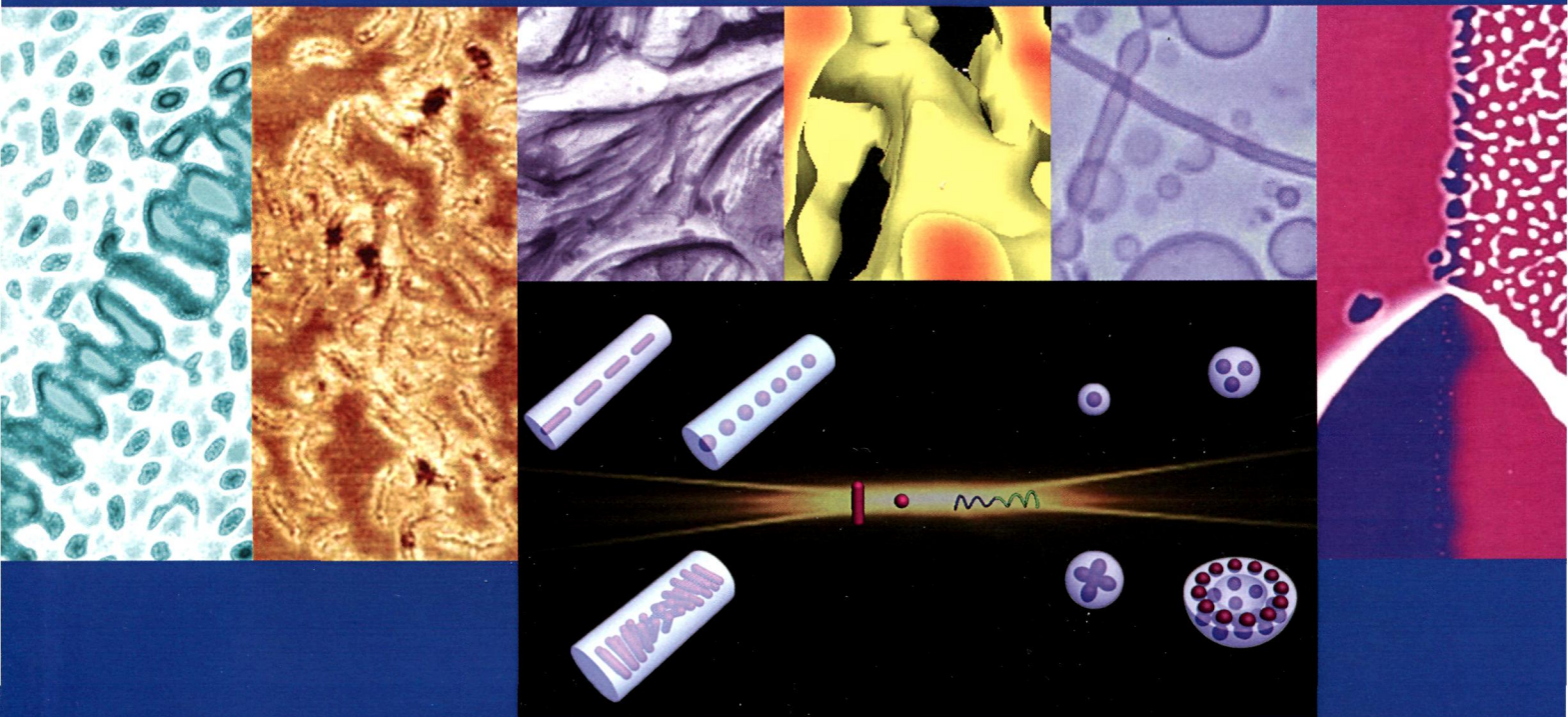


771
P80/3



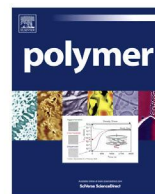
VOLUME 55 ISSUE 12, 6 JUNE 2014

polymer



Available online at www.sciencedirect.com

ScienceDirect



Polymer Vol. 55, No. 12, 6 June 2014

Contents

POLYMER PAPERS

PEGylated block copolymers containing tertiary amine side-chains cleavable via acid-labile ortho ester linkages for pH-triggered release of DNA

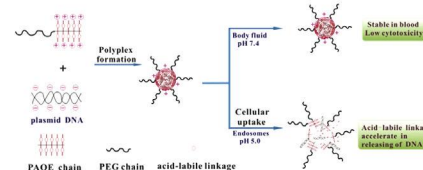
pp 2761–2771

Junping Lai^a, Zhangyan Xu^a, Rupei Tang^{a,b,*}, Weihang Ji^c, Rui Wang^a, Jun Wang^b, Chun Wang^{c,**}

^a School of Pharmaceutical Science, Jiangnan University, 1800 Lihu Road, Wuxi, Jiangsu Province 214122, PR China

^b School of Life Science, Anhui University, 111 Jiulong Road, Hefei, Anhui Province 230601, PR China

^c Department of Biomedical Engineering, University of Minnesota, 7-105 Hasselmo Hall, 312 Church Street S. E., Minneapolis, MN 55455, USA

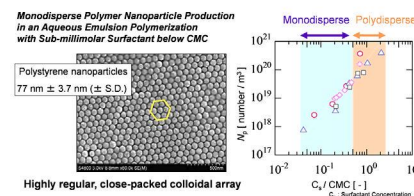


Advanced synthesis for monodisperse polymer nanoparticles in aqueous media with sub-millimolar surfactants

pp 2772–2779

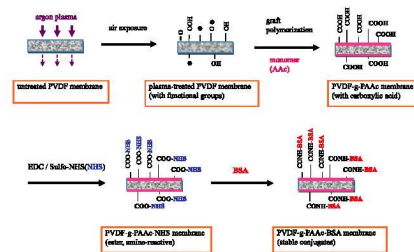
Haruyuki Ishii*, Motohiro Ishii, Daisuke Nagao, Mikio Konno*

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



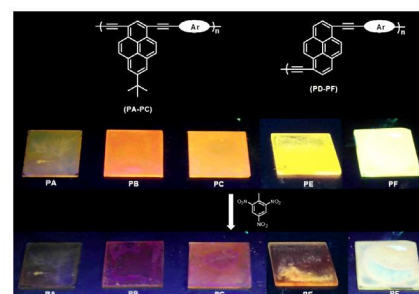
Protein immobilization onto poly(vinylidene fluoride) microporous membranes activated by the atmospheric pressure low temperature plasma

pp 2780–2791

Naohisa Akashi^{a,*}, Shin-ichi Kuroda^b^a Graduate School of Engineering, Gunma University, 29-1 Hon-cho, Ohta, Gunma 373-0057, Japan^b Faculty of Science and Technology, Gunma University 29-1 Hon-cho, Ohta, Gunma 373-0057, Japan

Butyl pyrene containing poly(arylene ethynylene)s for highly sensitive and selective sensing of TNT

pp 2792–2798

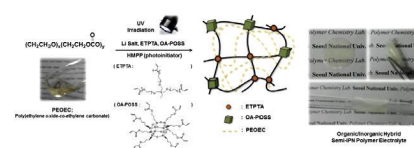
Siddheshwar B. Jagtap^a, Darshna D. Potphode^a, Tanaji K. Ghorpade^a, Akshaya K. Palai^b, Manoranjan Patri^a, Sarada P. Mishra^{a,*}^a Polymer Science and Technology Centre, Naval Materials Research Laboratory (DRDO), Shill-Badlapur Road, Anand Nagar P.O., Ambernath (E) 421506, Maharashtra, India^b Department of Chemical Sciences, Tata Institute of Fundamental Research, Colaba, Homi Bhabha Road, Mumbai 400005, India

Preparation of organic/inorganic hybrid semi-interpenetrating network polymer electrolytes based on poly(ethylene oxide-co-ethylene carbonate) for all-solid-state lithium batteries at elevated temperatures

pp 2799–2808

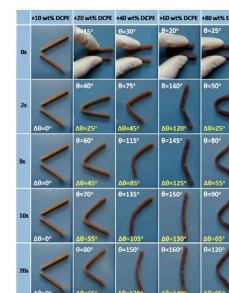
Su-Jee Kwon, Dong-Gyun Kim, Jimin Shim, Jin Hong Lee, Ji-Hoon Baik, Jong-Chan Lee*

School of Chemical and Biological Engineering, and Institute of Chemical Processes, Seoul National University, 599 Gwanak-ro, Gwanak-gu, Seoul 151-744, Republic of Korea



Preparation and properties of cyclopentadiene-containing monomer modified polydicyclopentadiene

pp 2809–2816

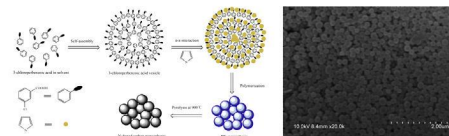
Fangyuan Hu^{a,b}, Yubin Zheng^{a,b,*}, Yuanyuan Fang^b, Xiang Ren^b, Xiaomin Liu^b^a State Key Laboratory of Fine Chemicals, Dalian University of Technology, Dalian, PR China^b Liaoning Province Key Laboratory of Polymer Science and Engineering, Department of Polymer Science and Engineering, Dalian University of Technology, Dalian, PR China

Facile synthesis of polypyrrole nanospheres and their carbonized products for potential application in high-performance supercapacitors

pp 2817–2824

Chen Shen, Yupeng Sun, Wei Yao, Yun Lu*

Department of Polymer Science and Engineering, State Key Laboratory of Coordination Chemistry, Key Laboratory of High Performance Polymer Materials and Technology (Nanjing University), Ministry of Education, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210093, PR China

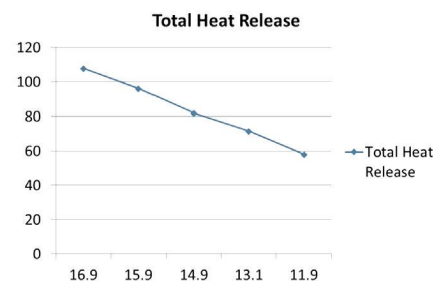


Flammability of polyesters

pp 2825–2830

Taneisha Deans, David A. Schiraldi*

Department of Macromolecular Science & Engineering, Case Western Reserve University, Cleveland, OH 44017-7202, USA



The strong interaction between poly(vinyl chloride) and a new eco-friendly plasticizer: A combined experiment and calculation study

pp 2831–2840

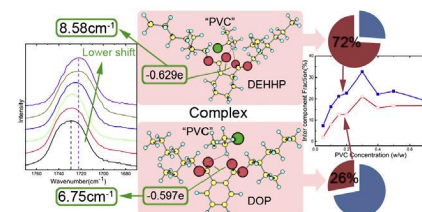
Yang Liu^a, Rongchun Zhang^b, Xiaoliang Wang^{a,*}, Pingchuan Sun^c, Wei Chen^a, Jianyi Shen^d, Gi Xue^{a,*}

^aKey Laboratory of High Performance Polymer Materials and Technology, Nanjing National Laboratory of Microstructures, Department of Polymer Science and Engineering, The School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210093, PR China

^bSchool of Physics, Nankai University, Tianjin 300071, PR China

^cKey Laboratory of Functional Polymer Materials, Ministry of Education, College of Chemistry, Nankai University, Tianjin 300071, PR China

^dLaboratory of Mesoscopic Chemistry, The School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210093, PR China

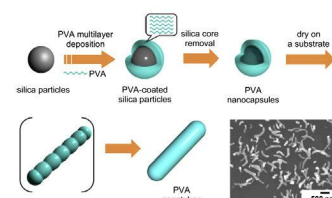


Fabrication of poly(vinyl alcohol)s (PVAs) nanotubes through the fusion of nanocapsules composed of PVAs multilayer films

pp 2841–2847

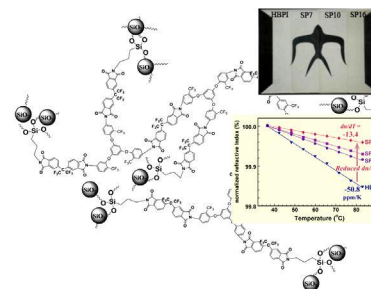
Toshiyuki Kida, Tomoya Ohta, Kenta Kondo, Mitsuru Akashi*

Department of Applied Chemistry, Graduate School of Engineering, Osaka University, 2-1 Yamada-oka, Suita 565-0871, Japan



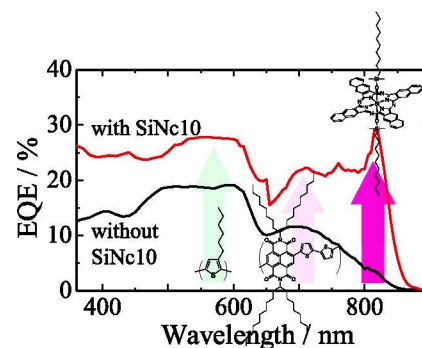
Thermal and optical properties of hyperbranched fluorinated polyimide/mesoporous SiO₂ nanocomposites exhibiting high transparency and reduced thermo-optical coefficients

pp 2848–2855

Hong Gao^a, Daisuke Yorifuji^a, Zhenhua Jiang^b, Shinji Ando^{a,*}^aDepartment of Chemistry and Materials Science, Tokyo Institute of Technology, 2-12-1-E4-5 Ookayama, Meguro-ku, Tokyo 152-8552, Japan^bAlan G. MacDiarmid Institute, College of Chemistry, Jilin University, Qianjin Street 2699, Changchun 130012, PR China

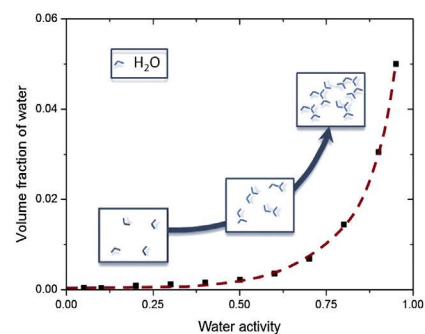
Near-IR dye sensitization of polymer blend solar cells

pp 2856–2860

Huajun Xu^a, Hideo Ohkita^{a,b,*}, Toshiaki Hirata^a, Hiroaki Bente^a, Shinzaburo Ito^a^aDepartment of Polymer Chemistry, Graduate School of Engineering, Kyoto University, Katsura, Nishikyo, Kyoto 615-8510, Japan^bJapan Science and Technology Agency (JST), PRESTO, 4-1-8 Honcho Kawaguchi, Saitama 332-0012, Japan

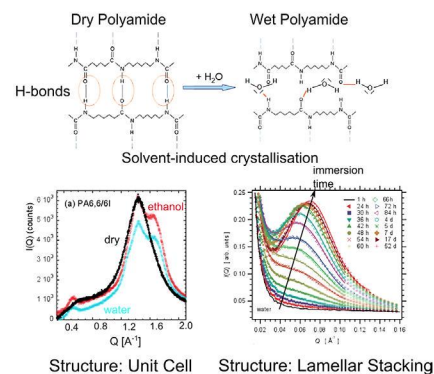
Water clustering in polychloroprene

pp 2861–2866

Pierre Yves Le Gac^{a,*}, Gérard Roux^b, Peter Davies^a, Bruno Fayolle^c, Jacques Verdu^c^aIFREMER Centre de Bretagne, Marine Structures Laboratory, BP70, 29280 Plouzane, France^bThales Underwater Systems, TUS, route des Dolines, BP 157, 06903 Sophia-Antipolis Cedex, France^cPIMM, Arts et Métiers ParisTech, 151 Bd de l'Hôpital, 75013 Paris, France

Effect of polar solvents on the crystalline phase of polyamides

pp 2867–2881

M. Laurati^{a,b,*}, A. Arbe^b, A. Rios de Anda^a, L.-A. Fillot^a, P. Sotta^a^aLaboratoire Polymères et Matériaux Avancés, UMR5268, CNRS/Solvay Advanced Research & Technology Innovation, 85 Rue des frères Perret, 69192 Saint-Fons Cedex, France^bCentro de Física de Materiales (CSIC-UPV/EHU), Paseo Manuel de Lardizabal 5, 20018 Donostia/San Sebastián, Spain

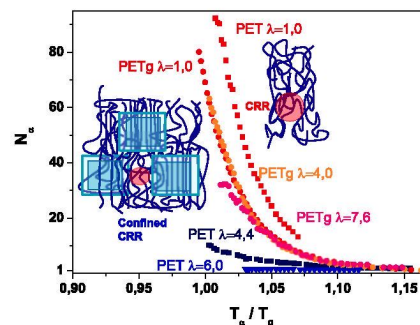
Contribution of chain alignment and crystallization in the evolution of cooperativity in drawn polymers

pp 2882–2889

F. Hamonic^a, D. Prevosto^{b,**}, E. Dargent^a, A. Saiter^{a,*}

^a AMME-LECAP EA4528 International Laboratory, Institut des Matériaux de Rouen, Université et INSA de Rouen, BP12, 76801 Saint Etienne du Rouvray Cedex, France

^b Institute for Chemical and Physical Processes, CNR, Largo Pontecorvo 3, 56127 Pisa, Italy



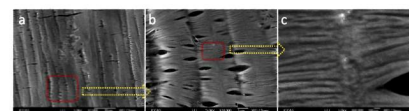
Reexamination of shish kebab formation in poly(ethylene oxide) melts

pp 2890–2899

Lina Zhang^a, Weichao Shi^a, He Cheng^{b,**}, Charles C. Han^{a,*}

^a State Key Laboratory of Polymer Physics and Chemistry, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, PR China

^b China Spallation Neutron Source, Institute of High Energy Physics, Chinese Academy of Sciences, Beijing 100049, PR China

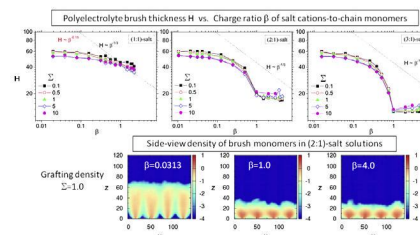


Polyelectrolyte brushes in monovalent and multivalent salt solutions

pp 2900–2912

Vijeth Sathyanarayana Guptha, Pai-Yi Hsiao^{*}

Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan, ROC

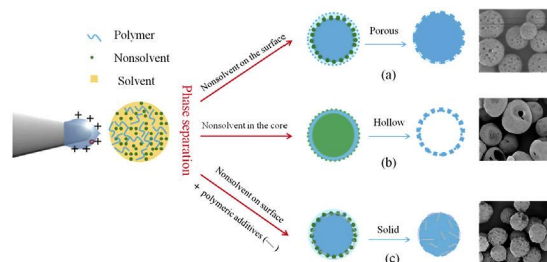


Controllable morphology and wettability of polymer microspheres prepared by nonsolvent assisted electro spraying

pp 2913–2920

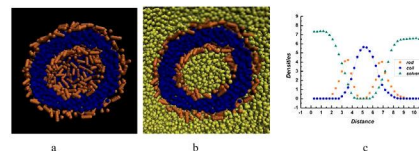
Jiefeng Gao, Wan Li, Julia Shuk-Ping Wong, Mingjun Hu, Robert K.Y. Li^{*}

Department of Physics and Materials Science, City University of Hong Kong, Tat Chee Avenue, Kowloon, Hong Kong



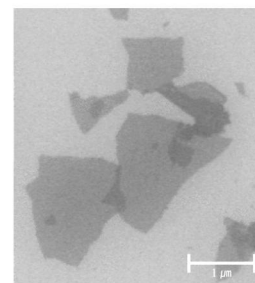
Vesicles from the self-assembly of coil–rod–coil triblock copolymers in selective solvents

pp 2921–2927

Zenglei Chen^a, Xianghong Wang^b, Linxi Zhang^a, Linli He^{a,*}^aDepartment of Physics, Wenzhou University, Wenzhou 325035, PR China^bWenzhou Vocational & Technical College, Wenzhou 325035, PR China**Facile in-situ preparation of polyaniline/graphene nanocomposites using methanesulfonic acid**

pp 2928–2935

Dong-Hun Kim, Soo-Young Park*

Major in Polymer Science and Engineering, School of Applied Chemical Engineering, Kyungpook National University, #1370 Sangyuk-dong, Buk-gu, Daegu 702-701, Republic of Korea

*Corresponding author

Available online at www.sciencedirect.com**ScienceDirect**Full text of this journal is available, on-line from **ScienceDirect**. Visit www.sciencedirect.com for more information.

Abstracted/indexed in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch. Also covered in the abstract and citation database SCOPUS[®]. Full text available on ScienceDirect[®]



ELSEVIER

ISSN 0032-3861