

**Polymer Vol. 51, No. 25, 26 November 2010**

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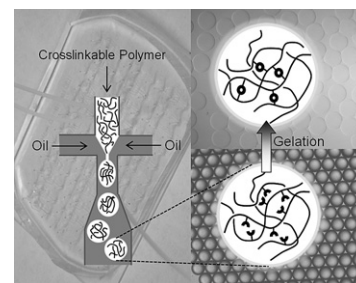
**FEATURE ARTICLE**

**Microfluidic fabrication of smart microgels from macromolecular precursors**

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Sebastian Seiffert\*, David A. Weitz

Harvard University, School of Engineering and Applied Sciences, 58 Oxford Street, Cambridge, MA 02138, USA



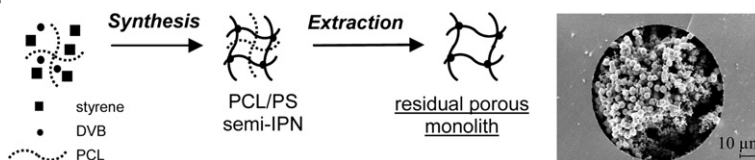
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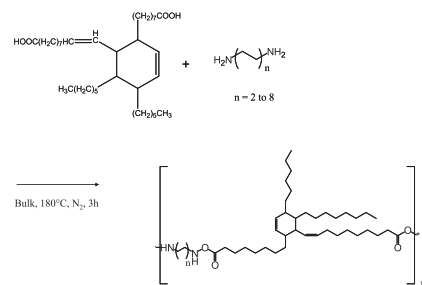
Institut de Chimie et des Matériaux Paris-Est, UMR 7182 CNRS – Université Paris-Est Créteil Val-de-Marne, 2, rue Henri Dunant, 94320 Thiais, France



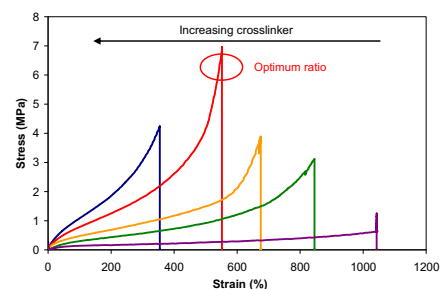
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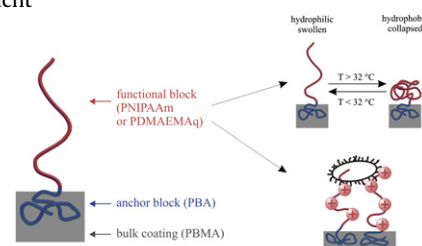
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Elodie Hablot<sup>a</sup>, Bertrand Donnio<sup>b</sup>, Michel Bouquey<sup>a</sup>, Luc Avérous<sup>a,\*</sup><sup>a</sup> LIPHT-ECPM, EA(CNRS) 4379, Université de Strasbourg, 25 rue Becquerel, 67087 Strasbourg Cedex 2, France<sup>b</sup> Institut de Physique et Chimie des Matériaux de Strasbourg (UMR 7504), CNRS, Université de Strasbourg, BP 43, F-67034 Strasbourg Cedex 2, France**Epoxidized natural rubber/dicarboxylic acid self-vulcanized blends**

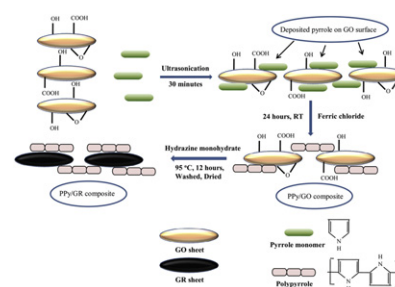
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Myriam Pire<sup>a</sup>, Sophie Norvez<sup>a,\*</sup>, Ilias Iliopoulos<sup>a</sup>, Benoît Le Rossignol<sup>b</sup>, Ludwik Leibler<sup>a</sup><sup>a</sup> Matière Molle et Chimie, ESPCI ParisTech, CNRS, UMR-7167, 10 Rue Vauquelin, 75005 Paris, France<sup>b</sup> Hutchinson SA, Centre de Recherche, Rue Gustave Nourry, BP31, 45120 Chalette sur Loing Cedex, France**Functional coatings for anti-biofouling applications by surface segregation of block copolymer additives**

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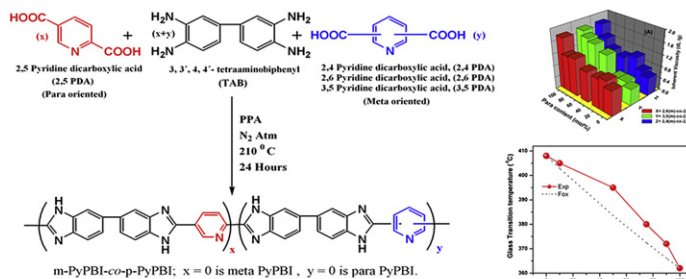
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**Structurally isomeric monomers Directed copolymerization of polybenzimidazoles and their properties**

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Arindam Sannigrahi, Sandip Ghosh, Sudhangshu Maity, Tushar Jana\*

School of Chemistry, University of Hyderabad, Hyderabad, India

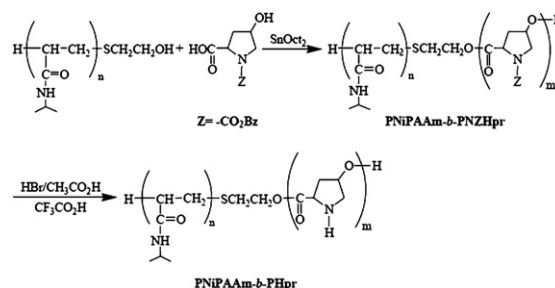


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Ren-Shen Lee\*, Wen-Hsin Chen, Yi-Ting Huang

The Center of General Education, Chang Gung University, 259 Wen-Hwa 1st Road, Kwei-Shan, Tao-Yuan 333, Taiwan, ROC



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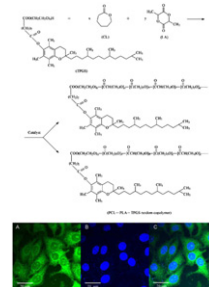
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<sup>a</sup>School of Life Sciences, Tsinghua University, Beijing 100084, PR China

<sup>b</sup>The Shenzhen Key Lab of Gene and Antibody Therapy, Center for Biotech and Bio-Medicine and Division of Life Sciences, Graduate School at Shenzhen, Tsinghua University, Shenzhen, Guangdong Province, 518055, PR China

<sup>c</sup>Institute of Biomedical Engineering, Peking Union Medical College & Chinese Academy of Medical Sciences, The Tianjin Key Laboratory of Biomaterial Research, Tianjin 300192, PR China

<sup>d</sup>Key Laboratory of Functional Polymer Materials, Ministry of Education, Institute of Polymer Chemistry, Nankai University, Tianjin 300071, PR China

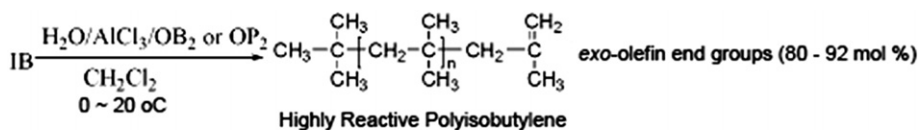


**A cost-effective process for highly reactive polyisobutylenes via cationic polymerization cointiated by AlCl<sub>3</sub>**

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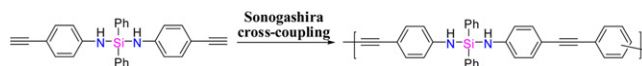
Qiang Liu, Yi-Xian Wu\*, Yu Zhang, Peng-Fei Yan, Ri-Wei Xu

State Key Laboratory of Chemical Resource Engineering, Key Laboratory of Carbon Fiber and Functional Polymers (Ministry of Education), Beijing University of Chemical Technology, Beijing 100029, China



**Synthesis, characterization, and properties of novel phenylene-silazane-acetylene polymers**

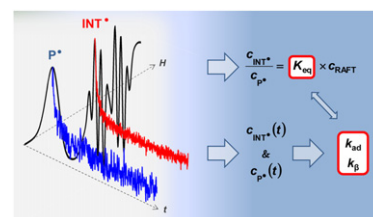
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Rui Wang<sup>a,b</sup>, Wei Liu<sup>a,b</sup>, Lei Fang<sup>a,b</sup>, Caihong Xu<sup>a,\*</sup><sup>a</sup> Beijing National Laboratory for Molecular Sciences(BNLMS), Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China<sup>b</sup> Graduate School of Chinese Academy of Sciences, Beijing 100049, China**RAFT/MADIX rate coefficients measured via time-resolved EPR spectroscopy after pulse laser initiation**

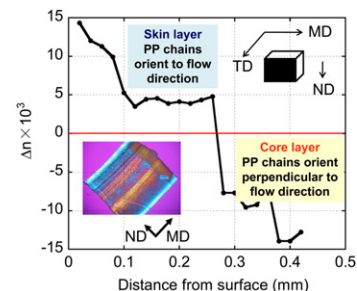
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Wibke Meiser, Michael Buback<sup>\*</sup>, Johannes Barth, Philipp Vana

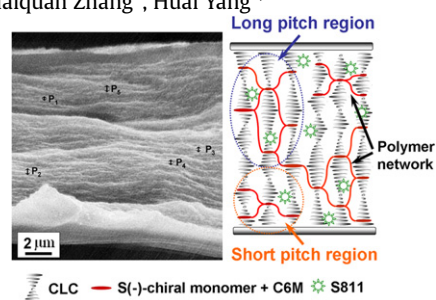
Institut für Physikalische Chemie, Georg-August-Universität Göttingen, Tammannstr. 6, D-37077 Göttingen, Germany

**Plywood-like structure of injection-moulded polypropylene**

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Masayuki Yamaguchi<sup>a,\*</sup>, Yuta Irie<sup>a</sup>, Panitha Phulkerd<sup>a</sup>, Hiroki Hagihara<sup>a</sup>, Soichiro Hirayama<sup>a</sup>, Shintaro Sasaki<sup>b</sup><sup>a</sup> School of Materials Science, Japan Advanced Institute of Science and Technology, 1-1 Asahidai, Nomi, Ishikawa 923-1292, Japan<sup>b</sup> Center for Nano Materials and Technology, Japan Advanced Institute of Science and Technology, 1-1 Asahidai, Nomi, Ishikawa 923-1292, Japan**Chiral polymer networks with a broad reflection band achieved with varying temperature**

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Renwei Guo<sup>a</sup>, Kexuan Li<sup>a</sup>, Hui Cao<sup>a</sup>, Xiaojuan Wu<sup>a</sup>, Guojie Wang<sup>a</sup>, Zihui Cheng<sup>a</sup>, Feifei Wang<sup>a</sup>, Haiquan Zhang<sup>b</sup>, Huai Yang<sup>a,\*</sup><sup>a</sup> Department of Materials Physics and Chemistry, School of Materials Science and Engineering, University of Science and Technology Beijing, Beijing 100083, PR China<sup>b</sup> State Key Laboratory of Metastable Materials Science and Technology, Yanshan University, Qinhuangdao 066004, PR China



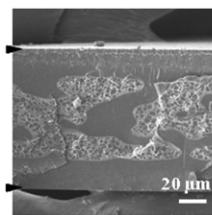
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Yan Zhang<sup>a,b</sup>, Fenghua Chen<sup>a,\*</sup>, Weichao Shi<sup>a,b</sup>, Yongri Liang<sup>a</sup>, Charles C. Han<sup>a,\*</sup>

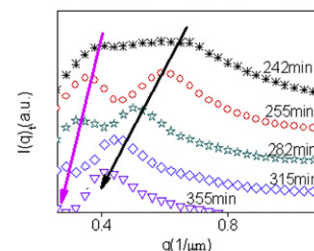
<sup>a</sup> Beijing National Laboratory for Molecular Sciences, Joint Laboratory of Polymer Science and Materials, State Key Laboratory of Polymer Physics and Chemistry, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, China

<sup>b</sup> Graduate School of The Chinese Academy of Sciences, Beijing 100190, China



f = 220min

(a)



(b)

### Different thermal behaviors of microbial polyesters poly(3-hydroxybutyrate-co-3-hydroxyvalerate-co-3-hydroxyhexanoate) and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate)

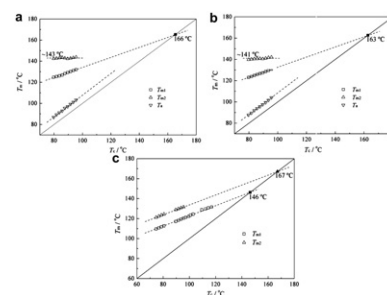
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Hai-Mu Ye<sup>a</sup>, Zhen Wang<sup>b</sup>, Hong-Hui Wang<sup>b</sup>, Guo-Qiang Chen<sup>c,\*\*</sup>, Jun Xu<sup>a,\*</sup>

<sup>a</sup> Dept Chemical Engineering, Key Laboratory of Advanced Materials of Ministry of Education, Tsinghua University, Beijing 100084, PR China

<sup>b</sup> Multidisciplinary Research Center, Shantou University, Shantou 515063, PR China

<sup>c</sup> Dept Biology, School of Life Science, Tsinghua University, Beijing 100084, PR China

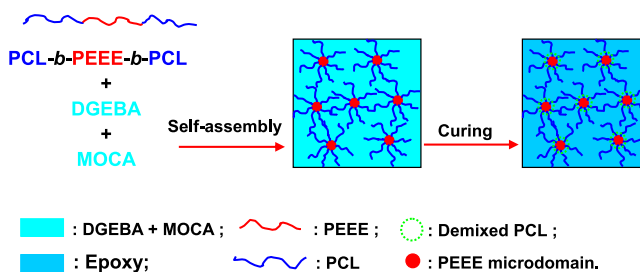


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Di Hu, Chongyin Zhang, Rentong Yu, Lei Wang, Sixun Zheng<sup>\*</sup>

Department of Polymer Science and Engineering and State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, Shanghai 200240, PR China

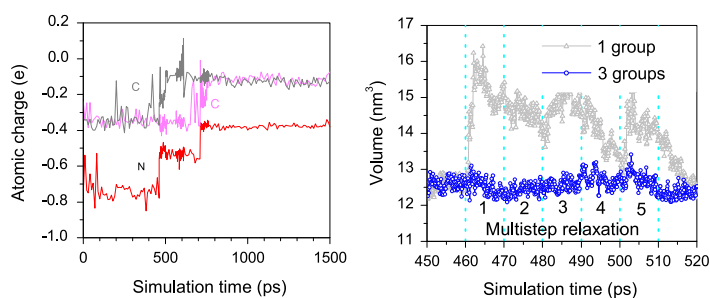


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Chunyu Li<sup>\*</sup>, Alejandro Strachan

School of Materials Science and Engineering and Birck Nanotechnology Center, Purdue University, West Lafayette, IN 47906, USA

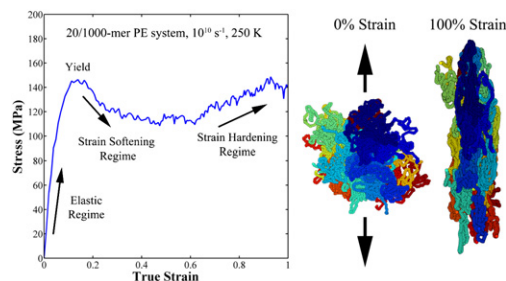


**Molecular dynamics simulations of deformation mechanisms of amorphous polyethylene**

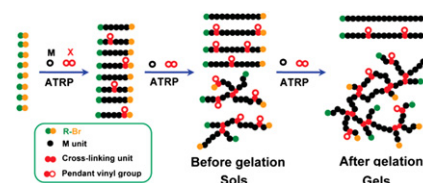
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D. Hossain, M.A. Tschopp\*, D.K. Ward, J.L. Bouvard, P. Wang, M.F. Horstemeyer

Center for Advanced Vehicular Systems (CAVS), Mississippi State University, Mississippi State, MS 39762, USA

**Modeling of branching and gelation in living copolymerization of monomer and divinyl cross-linker using dynamic lattice liquid model (DLL) and Flory–Stockmayer model**

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Piotr Polanowski<sup>b</sup>, Jeremiasz K. Jeszka<sup>c</sup>, Krzysztof Matyjaszewski<sup>a,\*</sup><sup>a</sup> Department of Chemistry, Carnegie Mellon University, 4400 Fifth Avenue, Pittsburgh, PA 15213, USA<sup>b</sup> Department of Molecular Physics, Technical University of Lodz, 90-924 Lodz, Poland<sup>c</sup> Centre of Molecular and Macromolecular Studies, Polish Academy of Sciences, 90-365 Lodz, Poland

\*Corresponding author

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