# Macromolecules

May 8, 2012 Volume 45, Issue 9 Pages 3647-4014

#### PERSPECTIVE

#### **Light-Responsive Block Copolymer Micelles**

Yue Zhao

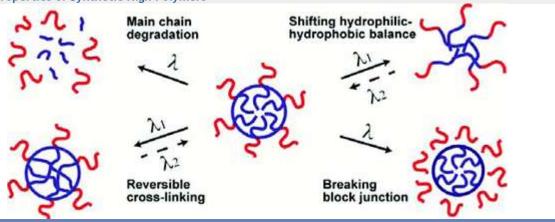
pp 3647-3657

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**DOI:** 10.1021/ma300094t

Section:

**Physical Properties of Synthetic High Polymers** 



#### ARTICLES

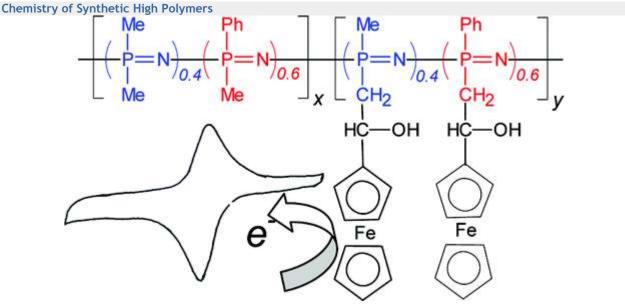
## Synthesis and Redox Characterization of Phosphazene Terpolymers with Pendant Ferrocene Groups

Daniel C. Kraiter, Patty Wisian-Neilson, Cuiping Zhang, and Alvin L. Crumbliss

pp 3658-3668

Publication Date (Web): April 23, 2012 (Article)

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#### **Controlled Radical Polymerization of 4-Vinylimidazole**

Michael H. Allen, Jr., Sean T. Hemp, Adam E. Smith, and Timothy E. Long

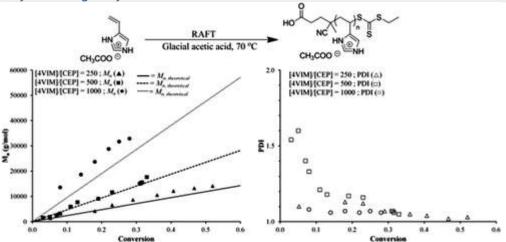
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Publication Date (Web): April 25, 2012 (Article)

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#### Precise Synthesis of Clickable Poly(n-hexyl isocyanate)

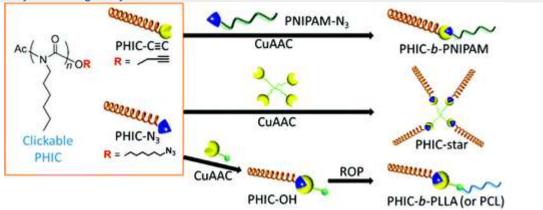
Toshifumi Satoh, Ryosuke Ihara, Daisuke Kawato, Naoki Nishikawa, Daichi Suemasa, Yohei Kondo, Keita Fuchise, Ryosuke Sakai, and Toyoji Kakuchi

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**DOI:** 10.1021/ma300555v

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### Efficient and Rapid Divergent Synthesis of Ethylene Oxide-Containing Dendrimers through Catalyst-Free Click Chemistry

Mathieu Arseneault, Isabelle Levesque, and Jean-François Morin

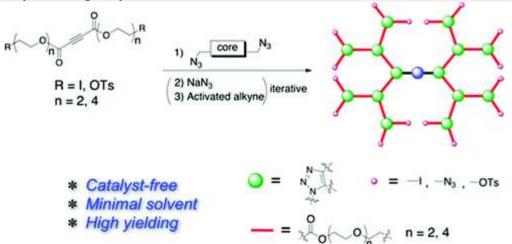
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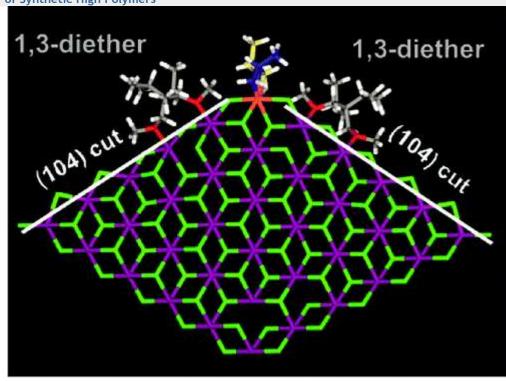
## Theoretical Investigation of Active Sites at the Corners of MgCl<sub>2</sub> Crystallites in Supported Ziegler–Natta Catalysts

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Publication Date (Web): April 19, 2012 (Article)

**DOI:** 10.1021/ma3001862

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pp 3702-3710

Publication Date (Web): April 19, 2012 (Article)

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Physical Properties of Synthetic High Polymers

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Complementary
Hydrogen-Bonding
Bifunctional Initiators

Metal-Catalyzed
Living Radical
Polymerization

Design of
Supramolecular
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Publication Date (Web): April 19, 2012 (Article) DOI: 10.1021/ma3000797

Section: **Electric Phenomena** 

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### Influence of the Ethylhexyl Side-Chain Content on the Open-Circuit Voltage in rr-Poly(3-hexylthiophene-co-3-(2-ethylhexyl)thiophene) Copolymers

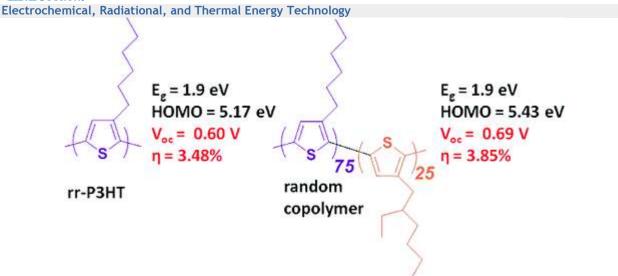
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DOI: 10.1021/ma300263a

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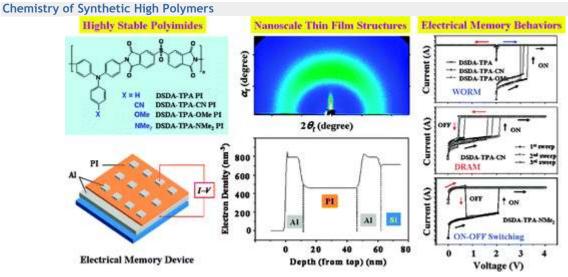
### Various Digital Memory Behaviors of Functional Aromatic Polyimides Based on Electron Donor and Acceptor Substituted Triphenylamines

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### **Electrochemical Generation and Spectroscopic Characterization of Charge Carriers within Isolated Planar Polythiophene**

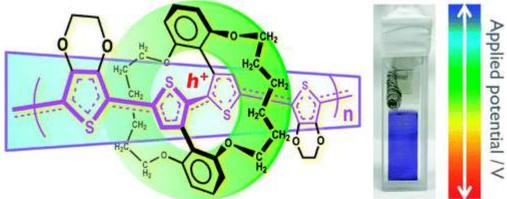
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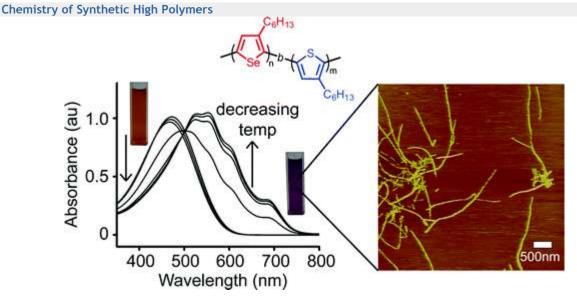


#### **Heterocycle-Induced Phase Separation in Conjugated Polymers**

Jon Hollinger, Paul M. DiCarmine, Dominik Karl, and Dwight S. Seferos

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### Synthesis of Amphiphilic Heteroeight-Shaped Polymer *Cyclic*-[Poly(ethylene oxide)-*b*-polystyrene]<sub>2</sub> via "Click" Chemistry

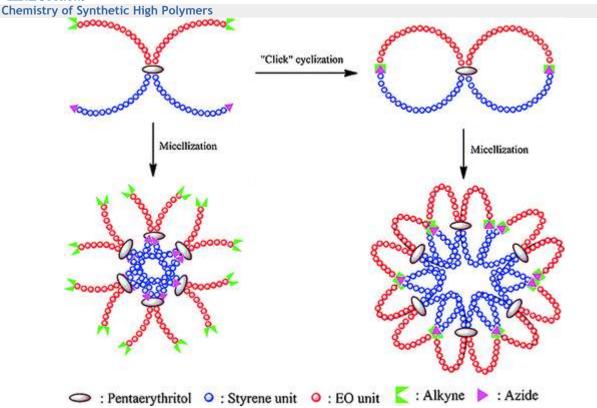
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pp 3779-3786

Publication Date (Web): April 26, 2012 (Article)

**DOI:** 10.1021/ma300487x

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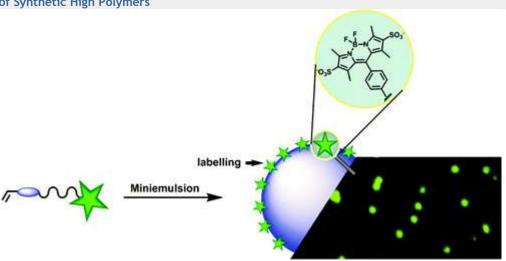
## One-Pot Production of Fluorescent Surface-Labeled Polymeric Nanoparticles via Miniemulsion Polymerization with Bodipy Surfmers

Rüdiger Sauer, Andrey Turshatov, Stanislav Baluschev, and Katharina Landfester

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**DOI:** 10.1021/ma300090a

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#### SP-PLP-EPR Measurement of ATRP Deactivation Rate

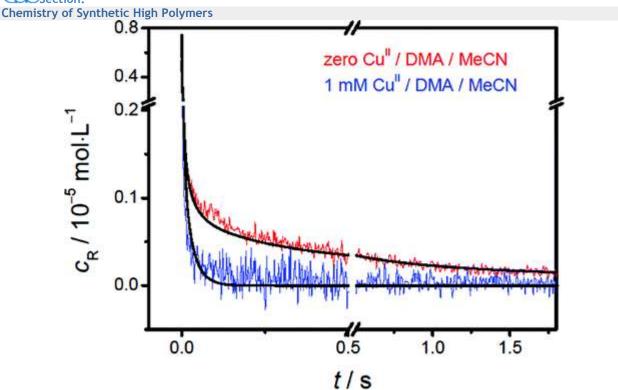
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**DOI:** 10.1021/ma300420j

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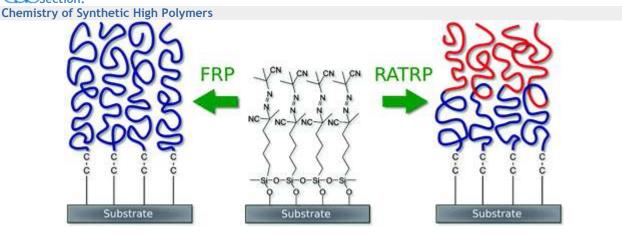


#### Surface-Initiated Polymerization by Means of Novel, Stable, Non-Ester-Based Radical Initiator

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**DOI:** 10.1021/ma300491e



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Andreas Wurm, Evgeny Zhuravlev, Kathrin Eckstein, Dieter Jehnichen, Doris Pospiech, R. Androsch, B. Wunderlich, and Christoph Schick

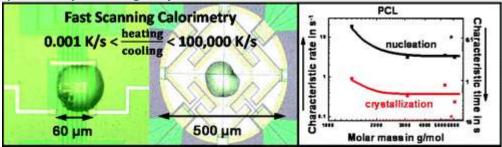
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**DOI:** 10.1021/ma300363b

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**Physical Properties of Synthetic High Polymers** 

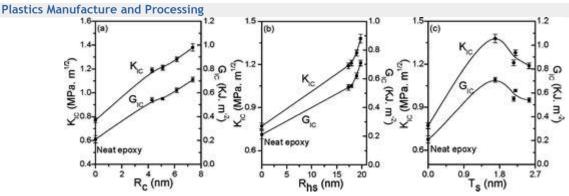


### Toughening Epoxy Thermosets with Block Ionomer Complexes: A Nanostructure–Mechanical Property Correlation

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Xiaohua Ma, Raja Swaidan, Youssef Belmabkhout, Yihan Zhu, Eric Litwiller, Mustapha Jouiad, Ingo Pinnau, and Yu Han

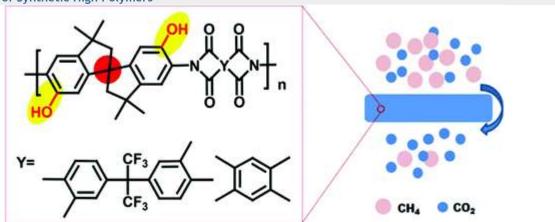
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Section:

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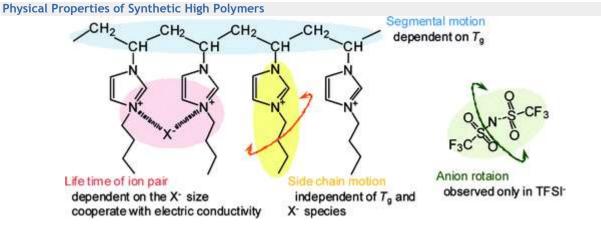
### Dielectric Relaxation and Viscoelastic Behavior of Polymerized Ionic Liquids with Various Counteranions

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Takumi Takano, Hiroyasu Masunaga, Akihiko Fujiwara, Hidenori Okuzaki, and Takahiko Sasaki

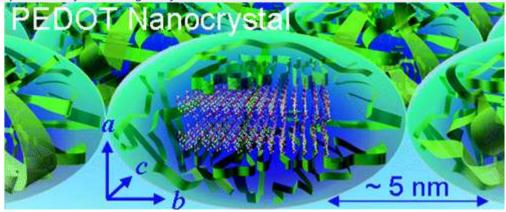
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Section:

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#### **Solid Phase Synthesis of Polymacromer and Copolymacromer Brushes**

Hernán R. Rengifo, Cristian Grigoras, Benjamin I. Dach, Xia Li, Nicholas J. Turro, Hae-Jeong Lee, Wen-Li Wu, and Jeffrey T. Koberstein

pp 3866-3873

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**Chemistry of Synthetic High Polymers** 

**DOI:** 10.1021/ma3004168

Section:

N<sub>3</sub> TMS

+
N<sub>3</sub> TMS

Click
Deprotection

### A Hybrid Organic/Inorganic Ionomer from the Copolymerization of Vinylphosphonic Acid and Zirconium Vinylphosphonate

Gregory J. Schlichting, James L. Horan, Jeri D. Jessop, Sarah E. Nelson, Sönke Seifert, Yuan Yang, and Andrew M. Herring

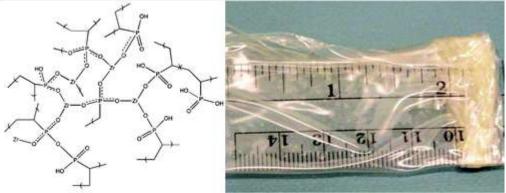
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**DOI:** 10.1021/ma300196y

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Electrochemical, Radiational, and Thermal Energy Technology



Formation of Lenticular Platelet Micelles via the Interplay of Crystallization and Chain Stretching: Solution Self-Assembly of Poly(ferrocenyldimethylsilane)-*block*-poly(2-vinylpyridine) with a Crystallizable Core-Forming Metalloblock

Siti Fairus Mohd Yusoff, Ming-Siao Hsiao, Felix H. Schacher, Mitchell A. Winnik, and Ian Manners

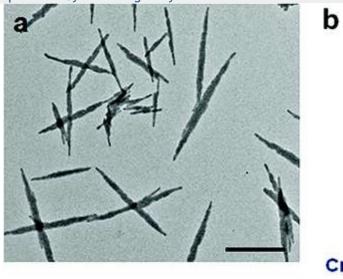
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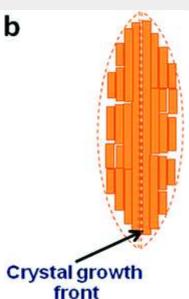
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**DOI:** 10.1021/ma2027726

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### Linear versus Exponential Growth of Weak Polyelectrolyte Multilayers: Correlation with **Polyelectrolyte Complexes**

Li Xu, Denis Pristinski, Aliaksandr Zhuk, Chris Stoddart, John F. Ankner, and Svetlana A. Sukhishvili

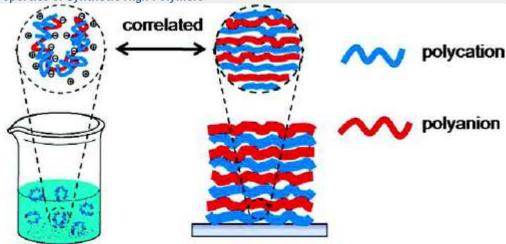
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**DOI:** 10.1021/ma300157p

### Section:

**Physical Properties of Synthetic High Polymers** 



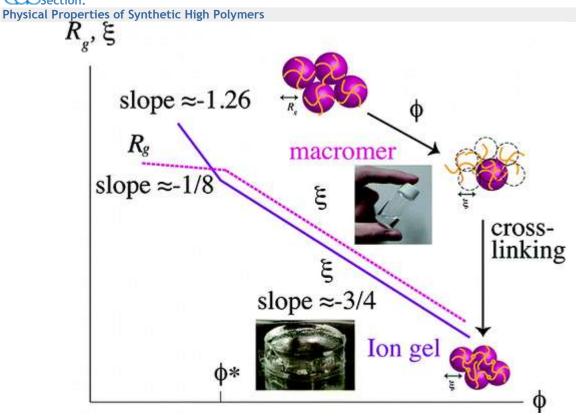
#### Structural Analysis of High Performance Ion-Gel Comprising Tetra-PEG Network

Hanako Asai, Kenta Fujii, Takeshi Ueki, Takamasa Sakai, Ung-il Chung, Masayoshi Watanabe, Young-Soo Han, Tae-Hwan Kim, and Mitsuhiro Shibayama

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Publication Date (Web): April 18, 2012 (Article)

DOI: 10.1021/ma300244u



### First Example of a Universal and Cost-Effective Approach: Polymers with Tunable Upper Critical Solution Temperature in Water and Electrolyte Solution

Jan Seuring and Seema Agarwal

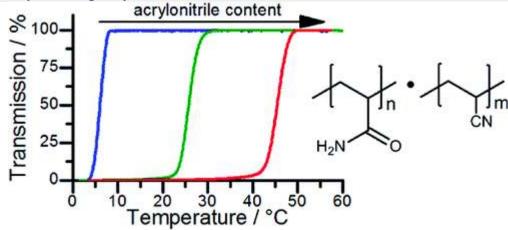
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**DOI:** 10.1021/ma300355k

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### Ion-Specific Responsiveness of Polyamidoamine (PAMAM) Dendrimers Adsorbed on Silica Substrates

Maria Porus, Florent Clerc, Plinio Maroni, and Michal Borkovec

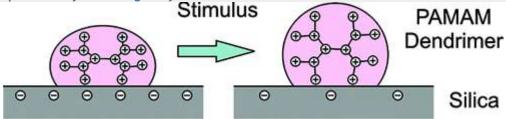
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#### Solvent Effects in Polyurethane Cure: A Model Study

Stephen Monaghan and Richard A. Pethrick

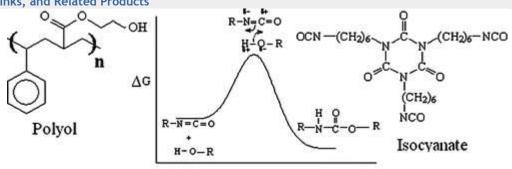
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Reaction coordinate

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Jinming Hu, Tao Wu, Guoqing Zhang, and Shiyong Liu

pp 3939-3947

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Section:

Inorganic Analytical Chemistry
Hg<sup>2+</sup> Concentration
Low
High

HC MA

HC MA

HC MA
R hB HA

HC MA
R hB HA

### Synthesis, Morphology, and Properties of Segmented Poly(ether amide)s with Uniform Oxalamide-Based Hard Segments

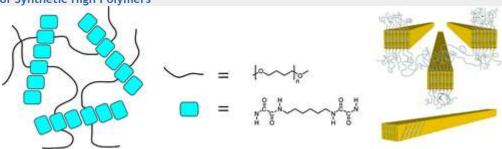
Niels J. Sijbrandi, Ad J. Kimenai, Edwin P. C. Mes, René Broos, Georg Bar, Martin Rosenthal, Yaroslav Odarchenko, Dimitri A. Ivanov, Pieter J. Dijkstra, and Jan Feijen

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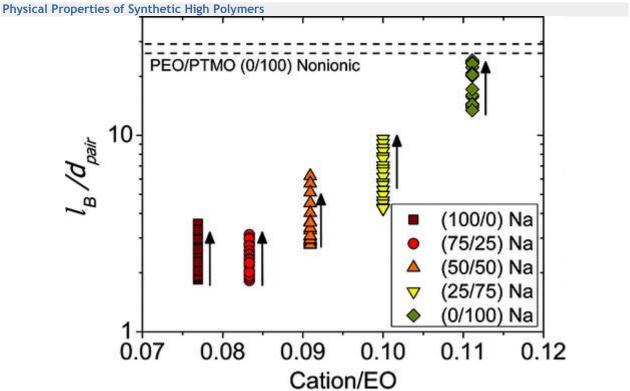
#### Molecular Mobility and Cation Conduction in Polyether-Ester-Sulfonate Copolymer Ionomers

Gregory J. Tudryn, Michael V. O'Reilly, Shichen Dou, Daniel R. King, Karen I. Winey, James Runt, and Ralph H. Colby

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#### Ionic Conduction and Dielectric Response of Poly(imidazolium acrylate) Ionomers

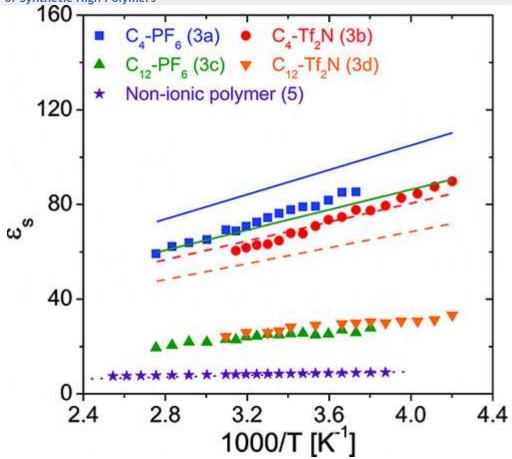
U Hyeok Choi, Minjae Lee, Sharon Wang, Wenjuan Liu, Karen I. Winey, Harry W. Gibson, and Ralph H. Colby pp 3974-3985

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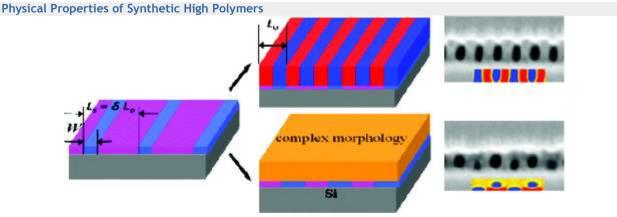
### Nonbulk Complex Structures in Thin Films of Symmetric Block Copolymers on Chemically Nanopatterned Surfaces

Guoliang Liu, François Detcheverry, Abelardo Ramírez-Hernández, Hiroshi Yoshida, Yasuhiko Tada, Juan J. de Pablo, and Paul F. Nealey

pp 3986-3992

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#### Micellar Formation and Organization in Thin Film Polymer Blends

X. Chelsea Chen, Hengxi Yang, and Peter F. Green

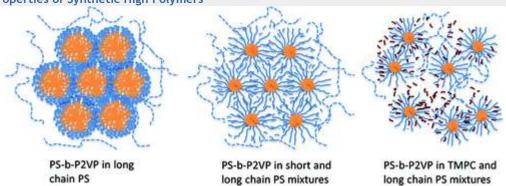
pp 3993-4000

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**DOI:** 10.1021/ma300194d



**Physical Properties of Synthetic High Polymers** 



#### Pattern Driven Stress Localization in Thin Diblock Copolymer Films

Andrew B. Croll and Alfred J. Crosby

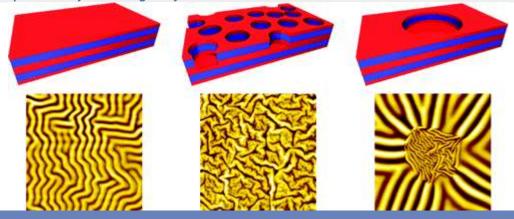
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**DOI:** 10.1021/ma300159x

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NOTES

#### A Phase Diagram for Polymer-Grafted Nanoparticles in Homopolymer Matrices

Daniel Sunday, Jan Ilavsky, and David L. Green

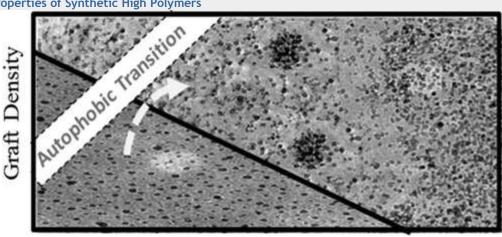
pp 4007-4011

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**DOI:** 10.1021/ma300438g

Section:

**Physical Properties of Synthetic High Polymers** 



### Matrix Mn / Grafted Mn

Stereocomplexation of Poly(L-lactide) and Random Copolymer Poly(D-lactide-co-εcaprolactone) To Enhance Melt Stability

Purba Purnama, Youngmee Jung, and Soo Hyun Kim

pp 4012-4014 **Publication Date (Web):** April 25, 2012 (Note)

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Section:

**Plastics Manufacture and Processing** 

