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### Graphene/Polymer Nanocomposites

Hyunwoo Kim, Ahmed A. Abdala and Christopher W. Macosko

2010, *43* (16), pp 6515-6530

Publication Date (Web): July 23, 2010 (Perspective)

DOI: 10.1021/ma100572e

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Abstract

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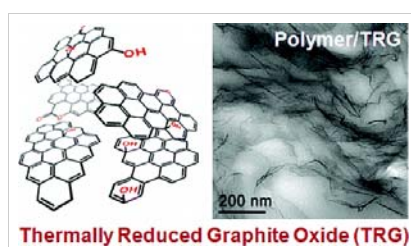


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### Enhanced Mechanical Properties of Graphene-Based Poly(vinyl alcohol) Composites

Xin Zhao, Qinghua Zhang and Dajun Chen, Ping Lu

2010, *43* (5), pp 2357-2363

Publication Date (Web): February 9, 2010 (Article)

DOI: 10.1021/ma902862u

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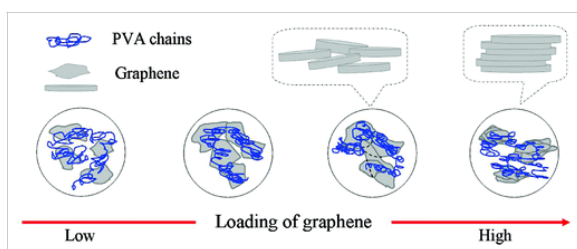


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### Exploitation of Intrinsic Microporosity in Polymer-Based Materials

Neil B. McKeown and Peter M. Budd

2010, *43* (12), pp 5163-5176

Publication Date (Web): May 20, 2010 (Perspective)

DOI: 10.1021/ma1006396

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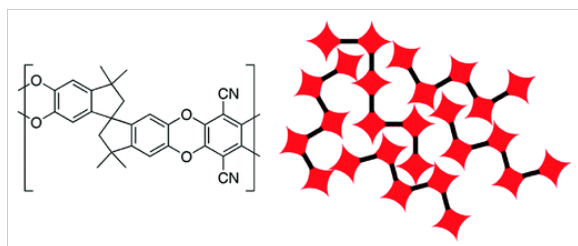


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**Tailored Assemblies of Block Copolymers in Solution: It Is All about the Process**

Ryan C. Hayward and Darrin J. Pochan

2010, *43* (8), pp 3577-3584

Publication Date (Web): March 31, 2010 (Perspective)

DOI: 10.1021/ma9026806


 Section: Physical Properties of Synthetic High Polymers

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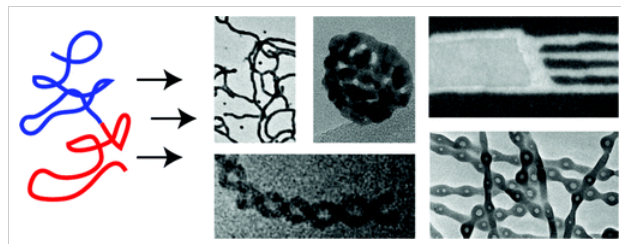
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**Macromolecular Engineering through Click Chemistry and Other Efficient Transformations**

Brent S. Sumerlin and Andrew P. Vogt

2010, *43* (1), pp 1-13

Publication Date (Web): November 18, 2009 (Perspective)

DOI: 10.1021/ma901447e


 Section: Chemistry of Synthetic High Polymers

Abstract

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**Responsive Polymers for Detection and Sensing Applications: Current Status and Future Developments**

Jinming Hu and Shiyong Liu

2010, *43* (20), pp 8315-8330

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Abstract

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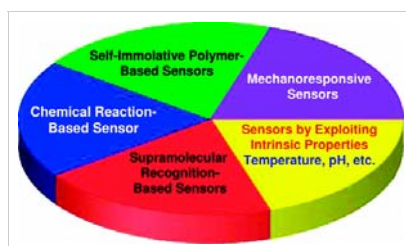
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**Organocatalysis: Opportunities and Challenges for Polymer Synthesis**

Matthew K. Kiesewetter, Eun Ji Shin, James L. Hedrick and Robert M. Waymouth

2010, *43* (5), pp 2093-2107

Publication Date (Web): February 16, 2010 (Perspective)

DOI: 10.1021/ma9025948


 Section: Chemistry of Synthetic High Polymers

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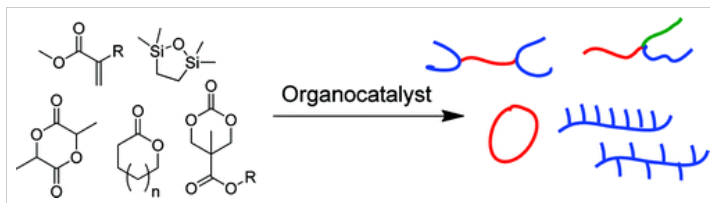


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### Low Band Gap Polymers for Roll-to-Roll Coated Polymer Solar Cells

Eva Bundgaard, Ole Hagemann, Matthieu Manceau, Mikkel Jørgensen, and Frederik C. Krebs

2010, *43* (19), pp 8115–8120

Publication Date (Web): September 15, 2010 (Article)

DOI: 10.1021/ma1015903

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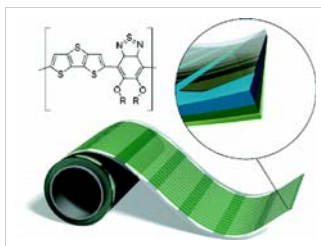


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### Photoinitiated Polymerization: Advances, Challenges, and Opportunities

Yusuf Yagci, Steffen Jockusch and Nicholas J. Turro

2010, *43* (15), pp 6245–6260

Publication Date (Web): June 16, 2010 (Perspective)

DOI: 10.1021/ma1007545

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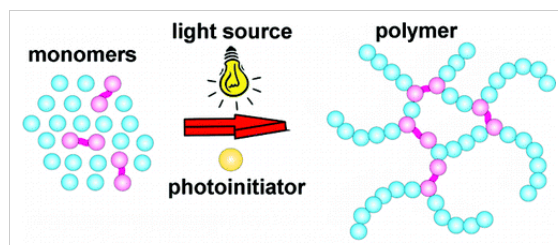


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### Synthesis and Photovoltaic Properties of Bithiazole-Based Donor–Acceptor Copolymers

Maojie Zhang, Haijun Fan, Xia Guo, Youjun He, Zhiguo Zhang, Jie Min, Jing Zhang, Guangjin Zhao, Xiaowei Zhan and Yongfang Li

2010, *43* (13), pp 5706–5712

Publication Date (Web): June 15, 2010 (Article)

DOI: 10.1021/ma100767b

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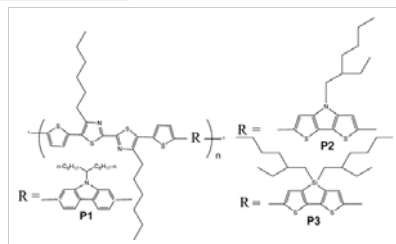


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### Novel Hydroxide-Conducting Polyelectrolyte Composed of an Poly(arylene ether sulfone) Containing Pendant Quaternary Guanidinium Groups for Alkaline Fuel Cell Applications

Junhua Wang, Shenghai Li and Suobo Zhang

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2010, 43 (8), pp 3890-3896

Publication Date (Web): March 22, 2010 (Article)

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Section: Electrochemical, Radiational, and Thermal Energy Technology

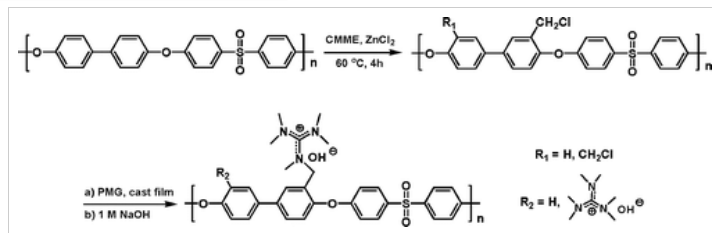


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### Bandgap and Molecular Level Control of the Low-Bandgap Polymers Based on 3,6-Dithiophen-2-yl-2,5-dihydropyrrolo[3,4-c]pyrrole-1,4-dione toward Highly Efficient Polymer Solar Cells

Lijun Huo, Jianhui Hou, Hsiang-Yu Chen, Shaoqing Zhang, Yang Jiang, Teresa L. Chen and Yang Yang

2009, 42 (17), pp 6564-6571

Publication Date (Web): August 6, 2009 (Article)

DOI: 10.1021/ma9012972

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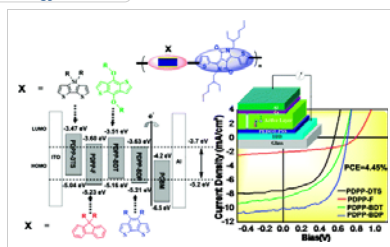


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### Synthesis of Thieno[3,4-*b*]pyrazine-Based and 2,1,3-Benzothiadiazole-Based Donor-Acceptor Copolymers and their Application in Photovoltaic Devices

Erjun Zhou, Junzi Cong, Shimpei Yamakawa, Qingshuo Wei, Motoshi Nakamura, Keisuke Tajima, Chunhe Yang and Kazuhito Hashimoto

2010, 43 (6), pp 2873-2879

Publication Date (Web): February 22, 2010 (Article)

DOI: 10.1021/ma100039q

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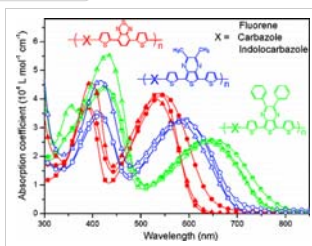


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### Sulfonated Poly(arylene ether sulfone ketone) Multiblock Copolymers with Highly Sulfonated Block. Synthesis and Properties

Byungchan Bae, Kenji Miyatake and Masahiro Watanabe

2010, 43 (6), pp 2684-2691

Publication Date (Web): February 18, 2010 (Article)

DOI: 10.1021/ma100291z

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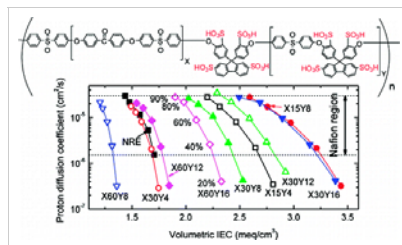


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### In situ Polymerization Approach to Graphene-Reinforced Nylon-6 Composites

Zhen Xu and Chao Gao

2010, 43 (16), pp 6716-6723

Publication Date (Web): July 19, 2010 (Article)

DOI: 10.1021/ma1009337

Section: **Plastics Manufacture and Processing**

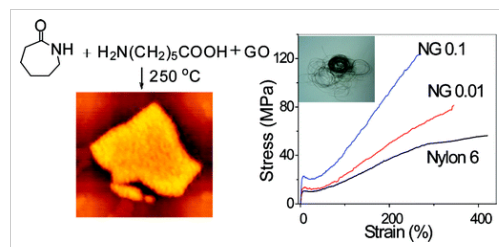
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### Hyperbranched Conjugated Polysiloles: Synthesis, Structure, Aggregation-Enhanced Emission, Multicolor Fluorescent Photopatterning, and Superamplified Detection of Explosives

Jianzhao Liu, Yongchun Zhong, Jacky W. Y. Lam, Ping Lu, Yuning Hong, Yong Yu, Yanan Yue, Mahtab Faisal, Herman H. Y. Sung, Ian D. Williams, Kam Sing Wong and Ben Zhong Tang

2010, 43 (11), pp 4921-4936

Publication Date (Web): May 12, 2010 (Article)

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Section: **Chemistry of Synthetic High Polymers**

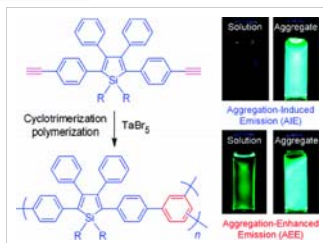
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### Interfacial Segregation in Polymer/Fullerene Blend Films for Photovoltaic Devices

David S. Germack, Calvin K. Chan, R. Joseph Kline, Daniel A. Fischer, David J. Gundlach, Michael F. Toney, Lee J. Richter and Dean M. DeLongchamp

2010, 43 (8), pp 3828-3836

Publication Date (Web): March 25, 2010 (Article)

DOI: 10.1021/ma100027b

Section: **Optical, Electron, and Mass Spectroscopy and Other Related Properties**

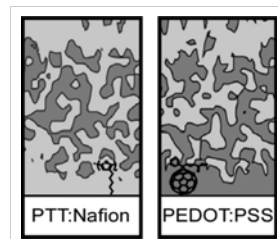
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### Crystalline Diblock Conjugated Copolymers: Synthesis, Self-Assembly, and

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**Microphase Separation of Poly(3-butylthiophene)-*b*-poly(3-octylthiophene)**

Pei-Tzu Wu, Guoqiang Ren, Chaoxu Li, Raffaele Mezzenga and Samson A. Jenekhe

2009, *42* (7), pp 2317-2320

Publication Date (Web): March 6, 2009 (Communication to the Editor)

DOI: 10.1021/ma802874v

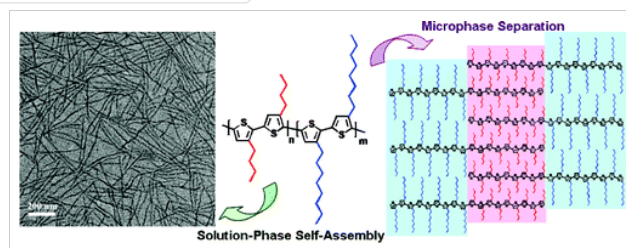
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 **Low Band Gap Polymers Based on Benzo[1,2-*b*:4,5-*b'*]dithiophene: Rational Design of Polymers Leads to High Photovoltaic Performance**

Samuel C. Price, Andrew C. Stuart and Wei You

2010, *43* (10), pp 4609-4612

Publication Date (Web): April 23, 2010 (Article)

DOI: 10.1021/ma100051v

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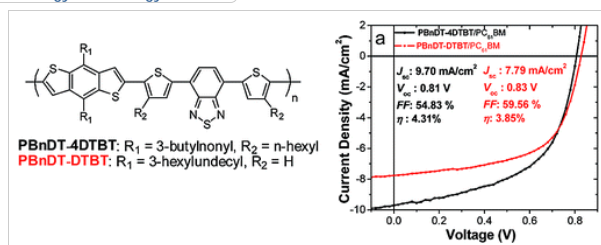
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 **“Schizophrenic” Self-Assembly of Block Copolymers Synthesized *via* Aqueous RAFT Polymerization: From Micelles to Vesicles†**

Paper number 143 in a series on Water-Soluble Polymers.

Adam E. Smith, Xuwei Xu, Stacey E. Kirkland-York, Daniel A. Savin and Charles L. McCormick

2010, *43* (3), pp 1210-1217

Publication Date (Web): January 11, 2010 (Article)

DOI: 10.1021/ma902378k

Abstract

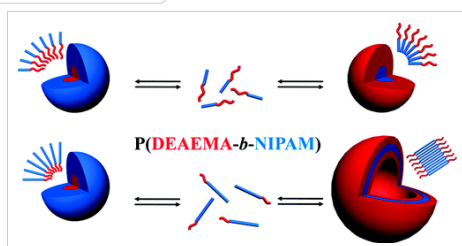
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