

Exploring the role of SEC-MALS in protein and polymer characterization

Log In Register 

ACS ACS Publications C&EN CAS

ACS Publications
MOST TRUSTED. MOST CITED. MOST READ.

ACS Journals

ACS ChemWorx

ACS Books

ACS Style Guide

C&EN Archives

Subscribe

Help

Macromolecules

Search text Anywhere Macromolecules All Publications/Website

Macromolecules ACS Macro Lett.

Table of Contents



Larger Cover

July 9, 2013
Volume 46, Issue 13
Pages 5097-5398

In this issue:

- » PERSPECTIVE
- » ARTICLES
- » NOTES
- » ADDITIONS AND CORRECTIONS

About the Cover:


Conformations of *cis*-1,4 polyisoprene on silica surfaces. Coarse-grain interactions with a flat surface serve to define curvature-dependent particle-polymer interaction. See page 5097. [View the article.](#)

Advertisements



Info for Advertisers



 ACS AuthorChoice indicates the article is freely available through sponsorship by the author or related funding agency. [More about this program.](#)

For Selected: [View Abstracts](#) [Add to ACS ChemWorx](#) [Download Citations](#)



PERSPECTIVE

 Polymer/Nanoparticle Interactions: Bridging the Gap

Yogendra Narayan Pandey, George J. Papakonstantopoulos, and Manolis Doxastakis

pp 5097-5106

Publication Date (Web): June 4, 2013 (Perspective)

DOI: 10.1021/ma400444w



Physical Properties of Synthetic High Polymers

Abstract

ACS ActiveView PDF

Hi-Res Print, Annotate, Reference QuickView

PDF [1452K]

PDF w/ Links [562K]

Full Text HTML

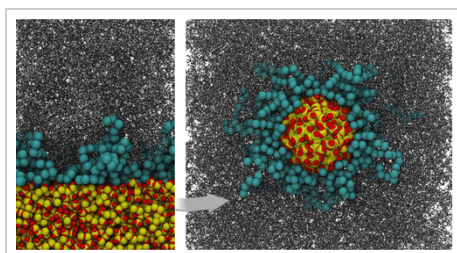
[Add to ACS ChemWorx](#)

Figure 1 of 6

Browse By Issue

Select Decade Select Volume Select Issue

List of Issues



Access your research from anywhere.

Add articles to ACS ChemWorx to access your ACS ActiveView PDF annotations from multiple devices.

- » About ACS ChemWorx
- » ACS ChemWorx Features
- » About ACS ActiveView PDF

[Go to ACS ChemWorx](#)

ARTICLES

Advertisements

Easy Access to Amphiphilic Heterografted Poly(2-oxazoline) Comb Copolymers

Christine Weber, Michael Wagner, Duygu Baykal, Stephanie Hoeppener, Renzo M. Paulus, Grit Festag, Esra Altuntas, Felix H. Schacher, and Ulrich S. Schubert

pp 5107-5116

Publication Date (Web): June 18, 2013 (Article)

DOI: 10.1021/ma400947r

ACS Section: Chemistry of Synthetic High Polymers

Abstract | Supporting Info

ACS ActiveView PDF
Hi-Res Print, Annotate, Reference QuickView

PDF [4106K]

PDF w/ Links [511K]

Full Text HTML

Add to ACS ChemWorx

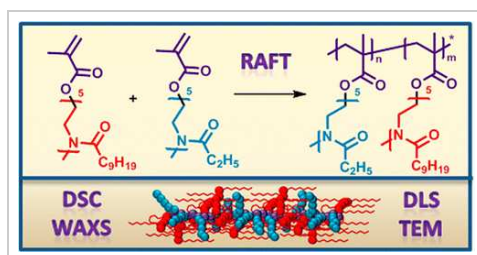


Figure 1 of 11

Examining the Initiation of the Polymerization Mechanism and Network Development in Aromatic Polybenzoxazines

Ian Hamerton, Lisa T. McNamara, Brendan J. Howlin, Paul A. Smith, Paul Cross, and Steven Ward

pp 5117-5132

Publication Date (Web): June 26, 2013 (Article)

DOI: 10.1021/ma401014h

ACS AuthorChoice ACS Section: Chemistry of Synthetic High Polymers

Abstract | Supporting Info

ACS ActiveView PDF
Hi-Res Print, Annotate, Reference QuickView

PDF [1825K]

PDF w/ Links [727K]

Full Text HTML

Add to ACS ChemWorx

Photoresponsive Coumarin Polyesters That Exhibit Cross-Linking and Chain Scission Properties

Murthy V. S. N. Maddipatla, Daniel Wehrung, Chuan Tang, Weizheng Fan, Moses O. Oyewumi, Toshikazu Miyoshi, and Abraham Joy

pp 5133-5140

Publication Date (Web): June 17, 2013 (Article)

DOI: 10.1021/ma400584y

ACS Section: Plastics Fabrication and Uses

Abstract | Supporting Info

ACS ActiveView PDF
Hi-Res Print, Annotate, Reference QuickView

PDF [4341K]

PDF w/ Links [489K]

Full Text HTML

Add to ACS ChemWorx

A Simple and Efficient Synthesis of an Acid-Labile Polyphosphoramidate by Organobase-Catalyzed Ring-Opening Polymerization and Transformation to Polyphosphoester Ionomers by Acid Treatment

Shiyi Zhang, Hai Wang, Yuefei Shen, Fuwu Zhang, Kellie Seetho, Jiong Zou, John-Stephen A. Taylor, Andrew P. Dove, and Karen L. Wooley

pp 5141-5149

Publication Date (Web): June 27, 2013 (Article)

DOI: 10.1021/ma400675m

ACS Section: Chemistry of Synthetic High Polymers

Abstract

ACS ActiveView PDF
Hi-Res Print, Annotate, Reference QuickView

PDF [2227K]

PDF w/ Links [391K]

Full Text HTML

Add to ACS ChemWorx

Thermally Stabilized Poly(lactide)s Stereocomplex with Bio-Based Aromatic Groups at Both Initiating and Terminating Chain Ends

Hiroharu Ajiro, Yi-Ju Hsiao, Hang Thi Tran, Tomoko Fujiwara, and Mitsuru Akashi

pp 5150-5156

Publication Date (Web): June 25, 2013 (Article)

DOI: 10.1021/ma400709j

ACS Section: Chemistry of Synthetic High Polymers

Abstract | Supporting Info

ACS ActiveView PDF
Hi-Res Print, Annotate, Reference QuickView

PDF [1518K]

PDF w/ Links [367K]

Full Text HTML

Add to ACS ChemWorx

Sync
your



PDFs





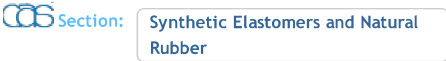









lab group















and
manuscripts

Info for Advertisers

- Kinetics of Self-Immolative Degradation in a Linear Polymeric System: Demonstrating the Effect of Chain Length** [Abstract](#) | [Supporting Info](#)
Ryan A. McBride and Elizabeth R. Gillies
pp 5157-5166
Publication Date (Web): June 21, 2013 (Article)
DOI: 10.1021/ma4009753
 ACS Section: Chemistry of Synthetic High Polymers
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1508K\]](#)
[PDF w/ Links \[459K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Ultrabright Fluorescent Polymeric Nanoparticles Made from a New Family of BODIPY Monomers** [Abstract](#) | [Supporting Info](#)
Chloé Grazon, Jutta Rieger, Rachel Méallet-Renault, Bernadette Charleux, and Gilles Clavier
pp 5167-5176
Publication Date (Web): June 27, 2013 (Article)
DOI: 10.1021/ma400590q
 ACS Section: Chemistry of Synthetic High Polymers
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1635K\]](#)
[PDF w/ Links \[429K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Phase-Switching Depolymerizable Poly(carbamate) Oligomers for Signal Amplification in Quantitative Time-Based Assays** [Abstract](#) | [Supporting Info](#)
Gregory G. Lewis, Jessica S. Robbins, and Scott T. Phillips
pp 5177-5183
Publication Date (Web): June 18, 2013 (Article)
DOI: 10.1021/ma4007413
 ACS Section: Chemistry of Synthetic High Polymers
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1671K\]](#)
[PDF w/ Links \[362K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Effects of Olefin Content and Alkyl Chain Placement on Optoelectronic and Morphological Properties in Poly(thienylene vinylenes)** [Abstract](#) | [Supporting Info](#)
Joshua C. Speros, Henry Martinez, Bryan D. Paulsen, Scott P. White, Andrew D. Bonifas, Philip C. Goff, C. Daniel Frisbie, and Marc A. Hillmyer
pp 5184-5194
Publication Date (Web): June 19, 2013 (Article)
DOI: 10.1021/ma4009115
 ACS Section: Chemistry of Synthetic High Polymers
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[4809K\]](#)
[PDF w/ Links \[684K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Functionalized Nanoporous Thin Films and Fibers from Photocleavable Block Copolymers Featuring Activated Esters** [Abstract](#) | [Supporting Info](#)
Hui Zhao, Weiyin Gu, Michael W. Thielke, Elizabeth Sterner, Tsunghan Tsai, Thomas P. Russell, E. Bryan Coughlin, and Patrick Theato
pp 5195-5201
Publication Date (Web): June 26, 2013 (Article)
DOI: 10.1021/ma400659h
 ACS Section: Synthetic Elastomers and Natural Rubber
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1424K\]](#)
[PDF w/ Links \[523K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Morphology and Mechanical Properties of the Mesomorphic Form of Isotactic Polypropylene in Stereodeficient Polypropylene** [Abstract](#)
Claudio De Rosa, Finizia Auriemma, Rocco Di Girolamo, Odda Ruiz de Ballesteros, Martina Pepe, Oreste Tarallo, and Anna Malafrente
pp 5202-5214
Publication Date (Web): June 19, 2013 (Article)
DOI: 10.1021/ma400570k
 ACS Section: Physical Properties of Synthetic High Polymers
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[3844K\]](#)
[PDF w/ Links \[1246K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)

- Origin of Epitaxial Cold Crystallization of Poly(L-lactic acid) on Highly Oriented Polyethylene Substrate** [Abstract](#)
- Ce Tu, Shidong Jiang, Huihui Li, and Shouke Yan
pp 5215-5222
Publication Date (Web): June 21, 2013 (Article)
DOI: 10.1021/ma400743k
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[4617K\]](#)
[PDF w/ Links \[394K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
-
- Nonuniform and Uniform Deformations of Stretched Nematic Elastomers** [Abstract](#)
- Haruko Higaki, Toshikazu Takigawa, and Kenji Urayama
pp 5223-5231
Publication Date (Web): June 20, 2013 (Article)
DOI: 10.1021/ma400771z
-  Section: Synthetic Elastomers and Natural Rubber
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1394K\]](#)
[PDF w/ Links \[551K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
-
- Subnanoscopic Mapping of Glass Transition Temperature around Ionic Multiplets in Sodium-Neutralized Poly(ethylene-random-methacrylic acid) Ionomer** [Abstract](#)
- Yohei Miwa, Tomoyo Kondo, and Shoichi Kutsumizu
pp 5232-5237
Publication Date (Web): June 18, 2013 (Article)
DOI: 10.1021/ma401035r
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[663K\]](#)
[PDF w/ Links \[327K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
-
- Entanglements and Networks to Strain-Induced Crystallization and Stress-Strain Relations in Natural Rubber and Synthetic Polyisoprene at Various Temperatures** [Abstract](#)
- Shigeyuki Toki, Justin Che, Lixia Rong, Benjamin S. Hsiao, Sureerut Amnuaypornsrri, Adul Nimpaiboon, and Jitladda Sakdapipanich
pp 5238-5248
Publication Date (Web): June 24, 2013 (Article)
DOI: 10.1021/ma400504k
-  Section: Synthetic Elastomers and Natural Rubber
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[2379K\]](#)
[PDF w/ Links \[573K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
-
- Microphase Separation Facilitating and Stabilizing Hierarchical Segment Self-Assembly of Combined Main-Chain/Side-Chain Liquid Crystalline Polymer in Diblock Copolymer** [Abstract](#)
- Guo-Hui Wen, Ben Zhang, He-Lou Xie, Xin Liu, Guan-Qun Zhong, Hai-Liang Zhang, and Er-Qiang Chen
pp 5249-5259
Publication Date (Web): June 26, 2013 (Article)
DOI: 10.1021/ma400325g
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1632K\]](#)
[PDF w/ Links \[659K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
-
- Surface Microdynamics Phase Transition and Internal Structure of High-Density, Ultrathin PHEMA-*b*-PNIPAM Diblock Copolymer Brushes on Silicone Rubber** [Abstract](#) | [Supporting Info](#)
- K. Jalili, F. Abbasi, and A. Milchev
pp 5260-5278
Publication Date (Web): June 25, 2013 (Article)
DOI: 10.1021/ma4003962
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[2614K\]](#)
[PDF w/ Links \[989K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)

- Plastic Deformation of Semicrystalline Polyethylene by X-ray Scattering: Comparison with Atomistic Simulations** [Abstract](#)
- Justin Che, C. Rebecca Locker, Sanghun Lee, Gregory C. Rutledge, Benjamin S. Hsiao, and Andy H. Tsou
- pp 5279-5289
- Publication Date (Web): June 20, 2013 (Article)
- DOI: 10.1021/ma4005007
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
- [PDF \[5120K\]](#)
- [PDF w/ Links \[644K\]](#)
- [Full Text HTML](#)
- [Add to ACS ChemWorx](#)
-
- Network Structure and Strong Microphase Separation for High Ion Conductivity in Polymerized Ionic Liquid Block Copolymers** [Abstract](#) | [Supporting Info](#)
- Jae-Hong Choi, Yuesheng Ye, Yossef A. Elabd, and Karen I. Winey
- pp 5290-5300
- Publication Date (Web): June 24, 2013 (Article)
- DOI: 10.1021/ma400562a
-  Section: Chemistry of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
- [PDF \[3866K\]](#)
- [PDF w/ Links \[518K\]](#)
- [Full Text HTML](#)
- [Add to ACS ChemWorx](#)
-
- Arrangement of Block Copolymer Microdomains Confined inside Hemispherical Cavities** [Abstract](#) | [Supporting Info](#)
- Dusik Bae, Gumhye Jeon, Hiroshi Jinnai, June Huh, and Jin Kon Kim
- pp 5301-5307
- Publication Date (Web): June 19, 2013 (Article)
- DOI: 10.1021/ma4009324
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
- [PDF \[1160K\]](#)
- [PDF w/ Links \[393K\]](#)
- [Full Text HTML](#)
- [Add to ACS ChemWorx](#)
-
- Remarkably Rich Variety of Nanostructures and Order–Order Transitions in a Rod–Coil Diblock Copolymer** [Abstract](#) | [Supporting Info](#)
- Ling-Ying Shi, Yu Zhou, Xing-He Fan, and Zhihao Shen
- pp 5308-5316
- Publication Date (Web): June 20, 2013 (Article)
- DOI: 10.1021/ma400944z
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
- [PDF \[1855K\]](#)
- [PDF w/ Links \[678K\]](#)
- [Full Text HTML](#)
- [Add to ACS ChemWorx](#)
-
- Synthesis of Highly Stretchable, Mechanically Tough, Zwitterionic Sulfobetaine Nanocomposite Gels with Controlled Thermosensitivities** [Abstract](#) | [Supporting Info](#)
- Jinyan Ning, Guang Li, and Kazutoshi Haraguchi
- pp 5317-5328
- Publication Date (Web): June 25, 2013 (Article)
- DOI: 10.1021/ma4009059
-  Section: Plastics Manufacture and Processing
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
- [PDF \[1554K\]](#)
- [PDF w/ Links \[648K\]](#)
- [Full Text HTML](#)
- [Add to ACS ChemWorx](#)
-
- Dynamics of Hybrid Poly(acrylamide-co-N,N-dimethylacrylamide) Hydrogels Containing Silica Nanoparticles Studied by Dynamic Light Scattering** [Abstract](#)
- S  verine Rose, Alba Marcellan, Dominique Hourdet, and Tetsuharu Narita
- pp 5329-5336
- Publication Date (Web): June 20, 2013 (Article)
- DOI: 10.1021/ma400918f
-  Section: Physical Properties of Synthetic High Polymers
- [ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
- [PDF \[930K\]](#)
- [PDF w/ Links \[361K\]](#)
- [Full Text HTML](#)
- [Add to ACS ChemWorx](#)

- Thermally Responsive Amphiphilic Conetworks and Gels Based on Poly(*N*-isopropylacrylamide) and Polyisobutylene** [Abstract](#) | [Supporting Info](#)
Gergely Kali, Szilvia Vavra, Krisztina László, and Béla Iván
pp 5337-5344
Publication Date (Web): June 26, 2013 (Article)
DOI: 10.1021/ma400535r

[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1111K\]](#)
[PDF w/ Links \[329K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Polymer Chain Conformations in CNT/PS Nanocomposites from Small Angle Neutron Scattering** [Abstract](#) | [Supporting Info](#)
Wei-Shao Tung, Vikki Bird, Russell J. Composto, Nigel Clarke, and Karen I. Winey
pp 5345-5354
Publication Date (Web): June 24, 2013 (Article)
DOI: 10.1021/ma400765v

[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1817K\]](#)
[PDF w/ Links \[499K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Solution Properties of a Cyclic Chain Having Tunable Chain Stiffness: Cyclic Amylose Tris(*n*-butylcarbamate) in Θ and Good Solvents** [Abstract](#) | [Supporting Info](#)
Ken Terao, Kazuya Shigeuchi, Keiko Oyamada, Shinichi Kitamura, and Takahiro Sato
pp 5355-5362
Publication Date (Web): June 21, 2013 (Article)
DOI: 10.1021/ma400774r

[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1037K\]](#)
[PDF w/ Links \[466K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- A Generalized Rouse Incoherent Scattering Function for Chain Dynamics of Unentangled Polymers in Dynamically Asymmetric Blends** [Abstract](#)
J. Colmenero
pp 5363-5370
Publication Date (Web): June 20, 2013 (Article)
DOI: 10.1021/ma400309c

[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1108K\]](#)
[PDF w/ Links \[423K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Toward Effective CO₂/CH₄ Separations by Sulfur-Containing PIMs via Predictive Molecular Simulations** [Abstract](#) | [Supporting Info](#)
Kyle E. Hart, Lauren J. Abbott, Neil B. McKeown, and Coray M. Colina
pp 5371-5380
Publication Date (Web): June 20, 2013 (Article)
DOI: 10.1021/ma400334b

[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[2800K\]](#)
[PDF w/ Links \[521K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)
- Influence of Cation Type on Ionic Aggregates in Precise Ionomers** [Abstract](#) | [Supporting Info](#)
Dan S. Bolintineanu, Mark J. Stevens, and Amalie L. Frischknecht
pp 5381-5392
Publication Date (Web): June 20, 2013 (Article)
DOI: 10.1021/ma400848m

[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[3361K\]](#)
[PDF w/ Links \[609K\]](#)
[Full Text HTML](#)
[Add to ACS ChemWorx](#)

NOTES


Chemorheology of Poly(high internal phase emulsions)

Reza Foudazi, Polina Gokun, Donald L. Feke, Stuart J. Rowan, and Ica Manas-Zloczower

pp 5393-5396

Publication Date (Web): June 18, 2013 (Note)

DOI: 10.1021/ma401157b

 Section: **Plastics Manufacture and Processing**
[First Page](#) | [Supporting Info](#)
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[1262K\]](#)[PDF w/ Links \[260K\]](#)[Full Text HTML](#)[Add to ACS ChemWorx](#)

ADDITIONS AND CORRECTIONS

 Correction to Lyotropic Liquid Crystallinity of Amylose Tris(alkylcarbamates): Cholesteric and Smectic Phase Formation in Different Solvents

Keiko Oyamada, Ken Terao, Masayori Suwa, Shinichi Kitamura, and Takahiro Sato

pp 5397-5397

Publication Date (Web): June 20, 2013 (Addition/Correction)

DOI: 10.1021/ma4012472

 Section: **Industrial Carbohydrates**
[First Page](#)
[Original Article](#)
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[187K\]](#)[PDF w/ Links \[102K\]](#)[Full Text HTML](#)[Add to ACS ChemWorx](#) **Correction to Electrochemical Deposition of Hollow N-Substituted Polypyrrole Microtubes from an Acoustic Emulsion**

C. P. McCarthy, N. B. McGuinness, P. B. Carolan, C. M. Fox, B. E. Alcock-Earley, C. B. Breslin, and A. D. Rooney

pp 5398-5398

Publication Date (Web): June 21, 2013 (Addition/Correction)

DOI: 10.1021/ma401217s

 Section: **Chemistry of Synthetic High Polymers**
[First Page](#)
[Original Article](#)
[ACS ActiveView PDF](#)
Hi-Res Print, Annotate, Reference QuickView
[PDF \[105K\]](#)[PDF w/ Links \[106K\]](#)[Full Text HTML](#)[Add to ACS ChemWorx](#)
 For Selected: [View Abstracts](#) [Add to ACS ChemWorx](#) [Download Citations](#)

 1155 Sixteenth Street N.W.
 Washington, DC 20036

Products

[Journals A-Z](#)[Books](#)[C&EN](#)[C&EN Archives](#)[ACS Legacy Archives](#)[ACS Mobile](#)[Video](#)

User Resources

[About Us](#)[ACS Members](#)[Librarians](#)[Authors & Reviewers](#)[Website Demos](#)

Support

[Get Help](#)[For Advertisers](#)[Institutional Sales](#)[Live Chat](#)

Partners

[Atypon](#)[COPE](#)[COUNTER](#)[crossref](#)[ORCID Open Researcher & Contributor ID](#)[PORTICO](#)

Search ACS Publications

Search Anywhere **Search**