

# Macromolecules

May 11, 2010 Volume 43, Issue 9 Pages 3999-4428

1.       **Synthesis of Helical Rod–Coil Multiblock Copolymers by Living Block Copolymerization of Isocyanide and 1,2-Diisocyanobenzene Using Arylnickel Initiators**  
Tetsuya Yamada, Michinori Suginome  
*Macromolecules* **2010** 43 (9), 3999-4002
2.       **ATRP of MMA in Polar Solvents Catalyzed by FeBr<sub>2</sub> without Additional Ligand**  
Yu Wang, Krzysztof Matyjaszewski  
*Macromolecules* **2010** 43 (9), 4003-4005
3.       **Differences Between Crystals Obtained in PLLA-Rich or PDLA-Rich Stereocomplex Mixtures**  
Damien Maillard, Robert E. Prud'homme  
*Macromolecules* **2010** 43 (9), 4006-4010
4.       **Synthesis of Functionalized Isotactic Polypropylene Dielectrics for Electric Energy Storage Applications**  
Xuepei Yuan, Yuichi Matsuyama, T. C. Mike Chung  
*Macromolecules* **2010** 43 (9), 4011-4015
5.       **Synthesis of Poly(vinyl acetate) Molecular Brushes by a Combination of Atom Transfer Radical Polymerization (ATRP) and Reversible Addition–Fragmentation Chain Transfer (RAFT) Polymerization**  
Alper Nese, Yungwan Kwak, Renaud Nicola<sup>‡</sup>, Michael Barrett, Sergei S. Sheiko, Krzysztof Matyjaszewski  
*Macromolecules* **2010** 43 (9), 4016-4019
6.       **Facile Synthesis of Multivalent Water-Soluble Organic Nanoparticles via “Surface Clicking” of Alkynylated Surfactant Micelles**  
Shiyong Zhang, Yan Zhao  
*Macromolecules* **2010** 43 (9), 4020-4022
7.       **Termination and Transfer Kinetics of Butyl Acrylate Radical Polymerization Studied via SP-PLP-EPR**  
Johannes Barth, Michael Buback, Pascal Hesse, Tatiana Sergeeva  
*Macromolecules* **2010** 43 (9), 4023-4031
8.       **Development of Self-Organizing, Self-Directing Molecular Nanowires: Synthesis and Characterization of Conjoined DNA–2,5-Bis(2-thienyl)pyrrole Oligomers**  
Wen Chen, Gözde Güler, Elizabeth Kuruvilla, Gary B. Schuster, Hsiang-Chih Chiu, Elisa Riedo  
*Macromolecules* **2010** 43 (9), 4032-4040
9.       **Effect of Molecular Structure on Thermoresponsive Behaviors of Pyrrolidone-Based Water-Soluble Polymers**  
Jun Sun, Yifeng Peng, Ying Chen, Yu Liu, Junjie Deng, Lican Lu, Yuanli Cai  
*Macromolecules* **2010** 43 (9), 4041-4049
10.      **Peptide–Polymer Bioconjugates via Atom Transfer Radical Polymerization and Their Solution Aggregation into Hybrid Micro/Nanospheres for Dye Uptake**  
Tapas K. Paira, Sanjib Banerjee, Manoj Raula, Atanu Kotal, Satyabrata Si, Tarun K. Mandal  
*Macromolecules* **2010** 43 (9), 4050-4061
11.      **Synthesis and Characterization of Hyperbranched Polyacrylamide Using Semibatch Reversible Addition–Fragmentation Chain Transfer (RAFT) Polymerization**  
Wen-Jun Wang, Dunming Wang, Bo-Geng Li, Shiping Zhu  
*Macromolecules* **2010** 43 (9), 4062-4069
12.      **Synthesis of Main-Chain-Type Polyrotaxanes by New Click Polymerization Using Homoditopic Nitrile N-Oxides via Rotaxanation–Polymerization Protocol**  
Young-Gi Lee, Yasuhito Koyama, Morio Yonekawa, Toshikazu Takata  
*Macromolecules* **2010** 43 (9), 4070-4080

13.        **Thiol–Ene Click Functionalization and Subsequent Polymerization of 2-Oxazoline Monomers**  
Mallory A. Cortez, Scott M. Grayson  
*Macromolecules* **2010** 43 (9), 4081-4090
14.        **Effect of Ligand Electronics on the Stability and Chain Transfer Rates of Substituted Pd(II)  $\alpha$ -Diimine Catalysts(1)**  
Chris S. Popeney, Zhibin Guan  
*Macromolecules* **2010** 43 (9), 4091-4097
15.        **Rational Design of an Amorphous Poly(2-oxazoline) with a Low Glass-Transition Temperature: Monomer Synthesis, Copolymerization, and Properties**  
Kristian Kempe, Stefan Jacobs, Hanneke M. L. Lambermont-Thijs, Martin M. W. M. Fijten, Richard Hoogenboom, Ulrich S. Schubert  
*Macromolecules* **2010** 43 (9), 4098-4104
16.        **Phototriggered Mass Migrating Motions in Liquid Crystalline Azobenzene Polymer Films with Systematically Varied Thermal Properties**  
Jun Isayama, Shusaku Nagano, Takahiro Seki  
*Macromolecules* **2010** 43 (9), 4105-4112
17.        **Reaction Rates and Mechanisms for Radical, Photoinitiated Addition of Thiols to Alkynes, and Implications for Thiol–Yne Photopolymerizations and Click Reactions**  
Benjamin D. Fairbanks, Evan A. Sims, Kristi S. Anseth, Christopher N. Bowman  
*Macromolecules* **2010** 43 (9), 4113-4119
18.        **A Chemical Route to High Molecular Weight Vegetable Oil-Based Polyhydroxyalkanoate**  
Zoran S. Petrović, Jelena Milić, Yijin Xu, Ivana Cvetković  
*Macromolecules* **2010** 43 (9), 4120-4125
19.        **Stimuli Responsive Peptide Conjugated Polymer Nanoparticles**  
Rutger J. I. Knoop, Matthijs de Geus, Gijs J. M. Habraken, Cor E. Koning, Henning Menzel, Andreas Heise  
*Macromolecules* **2010** 43 (9), 4126-4132
20.        **Redox Responsive Behavior of Thiol/Disulfide-Functionalized Star Polymers Synthesized via Atom Transfer Radical Polymerization**  
Jun Kamada, Kaloian Koynov, Cathrin Corten, Azhar Juhari, Jeong Ae Yoon, Marek W. Urban, Anna C. Balazs, Krzysztof Matyjaszewski  
*Macromolecules* **2010** 43 (9), 4133-4139
21.        **Fabrication of Maleimide Containing Thiol Reactive Hydrogels via Diels–Alder/Retro-Diels–Alder Strategy**  
Irem Kosif, Eun-Ju Park, Rana Sanyal, Amitav Sanyal  
*Macromolecules* **2010** 43 (9), 4140-4148
22.        **Crystallization Kinetics and Morphology of Biodegradable Double Crystalline PLLA-b-PCL Diblock Copolymers**  
Reina Verónica Castillo, Alejandro J. Müller, Jean-Marie Raquez, Philippe Dubois  
*Macromolecules* **2010** 43 (9), 4149-4160
23.        **Crystal Structure and Morphology of Linear Aliphatic n-Polyurethanes**  
C. E. Fernández, M. Bermúdez, S. Muñoz-Guerra, S. León, R. M. Versteegen, E. W. Meijer  
*Macromolecules* **2010** 43 (9), 4161-4171
24.        **Two Competing Crystallization Modes in a Smectogenic Polyester**  
Barbara Heck, Ernesto Perez, Gert Strobl  
*Macromolecules* **2010** 43 (9), 4172-4183
25.        **Unique Tackification Behavior of Needle-like Sepiolite Nanoclay in Brominated Isobutylene-co-p-methylstyrene (BIMS) Rubber**  
K. Dinesh Kumar, Andy H. Tsou, Anil K. Bhowmick  
*Macromolecules* **2010** 43 (9), 4184-4193
26.        **Production of Conductive PEDOT Nanofibers by the Combination of Electrospinning and Vapor-Phase Polymerization**  
Alexis Laforgue, Lucie Robitaille  
*Macromolecules* **2010** 43 (9), 4194-4200
27.        **Extraction of Microfibrils from Bacterial Cellulose Networks for Electrospinning of Anisotropic Biohybrid Fiber Yarns**

- Richard T. Olsson, Roland Kraemer, Amparo López-Rubio, Sergio Torres-Giner, María José Ocio, José María Lagarón  
*Macromolecules* **2010** 43 (9), 4201-4209
28. **Inhomogeneities and Chain Dynamics in Diene Rubbers Vulcanized with Different Cure Systems†**  
 J. L. Valentín, P. Posadas, A. Fernández-Torres, M. A. Malmierca, L. González, W. Chassé, K. Saalwächter  
*Macromolecules* **2010** 43 (9), 4210-4222
  29. **Multi-Length Scale Morphology of Poly(ethylene oxide)-Based Sulfonate Ionomers with Alkali Cations at Room Temperature**  
 Wenqin Wang, Wenjuan Liu, Gregory J. Tudryn, Ralph H. Colby, Karen I. Winey  
*Macromolecules* **2010** 43 (9), 4223-4229
  30. **Structure and Gas Barrier Properties of Poly(propylene-graft-maleic anhydride)/Phosphate Glass Composites Prepared by Microlayer Coextrusion**  
 Mohit Gupta, Yijian Lin, Taneisha Deans, Eric Baer, Anne Hiltner, David A. Schiraldi  
*Macromolecules* **2010** 43 (9), 4230-4239
  31. **PLLA Mesophase and Its Phase Transition Behavior in the PLLA-PEG-PLLA Copolymer As Revealed by Infrared Spectroscopy**  
 Jianming Zhang, Yongxin Duan, Abraham J. Domb, Yukihiro Ozaki  
*Macromolecules* **2010** 43 (9), 4240-4246
  32. **Physical Aging of Single Wall Carbon Nanotube Polymer Nanocomposites: Effect of Functionalization of the Nanotube on the Enthalpy Relaxation**  
 Anny L. Flory, T. Ramanathan, L. Catherine Brinson  
*Macromolecules* **2010** 43 (9), 4247-4252
  33. **Reversible Morphology Control in Block Copolymer Films via Solvent Vapor Processing: An in Situ GISAXS Study**  
 Marvin Y. Paik, Joan K. Bosworth, Detlef-M. Smilges, Evan L. Schwartz, Xavier Andre, Christopher K. Ober  
*Macromolecules* **2010** 43 (9), 4253-4260
  34. **Cubic to Hexagonal Phase Transition Induced by Electric Field**  
 Fernando C. Giacomelli, Nádia P. da Silveira, Frédéric Nallet, Petr Černoch, Miloš Steinhart, Petr Štěpánek  
*Macromolecules* **2010** 43 (9), 4261-4267
  35. **Electric Field Induced Gyroid-to-Cylinder Transitions in Concentrated Diblock Copolymer Solutions**  
 Kristin Schmidt, Christian W. Pester, Heiko G. Schoberth, Heiko Zettl, Kerstin A. Schindler, Alexander Böker  
*Macromolecules* **2010** 43 (9), 4268-4274
  36. **Characterization of the Photoacid Diffusion Length and Reaction Kinetics in EUV Photoresists with IR Spectroscopy**  
 Shuhui Kang, Wen-li Wu, Kwang-Woo Choi, Anuja De Silva, Christopher K. Ober, Vivek M. Prabhu  
*Macromolecules* **2010** 43 (9), 4275-4286
  37. **Effect of Deuterium Substitution on the Physical Properties of Polymer Melts and Blends**  
 Ronald P. White, Jane E. G. Lipson, Julia S. Higgins  
*Macromolecules* **2010** 43 (9), 4287-4293
  38. **Synthesis and Characteristics of Nanocomposite Gels Prepared by In Situ Photopolymerization in an Aqueous System**  
 Kazutoshi Haraguchi, Tetsuo Takada  
*Macromolecules* **2010** 43 (9), 4294-4299
  39. **Destabilization of Polyelectrolyte Multilayers Formed at Different Temperatures and Ion Concentrations**  
 Matthias Cornelsen, Christiane A. Helm, Stephan Block  
*Macromolecules* **2010** 43 (9), 4300-4309
  40. **Shear Modulus of a Polymer Brush**  
 Yoshihisa Fujii, Zhaohui Yang, Andrew Clough, Ophelia K. C. Tsui  
*Macromolecules* **2010** 43 (9), 4310-4313

41.       **Synthesis and Thermo-/pH- Dual Responsive Properties of Poly(amidoamine) Dendronized Poly(2-hydroxyethyl) Methacrylate**  
Min Gao, Xinru Jia, Yan Li, Dehai Liang, Yen Wei  
*Macromolecules* **2010** 43 (9), 4314-4323
42.       **Enzyme Entrapment in Reprecipitated Polyaniline Nano- and Microparticles**  
Louis R. Nemzer, Austin Schwartz, A. J. Epstein  
*Macromolecules* **2010** 43 (9), 4324-4330
43.       **Polyampholyte Microgels with Anionic Core and Cationic Shell**  
Susann Schachschal, Andreea Balaceanu, Claudiu Melian, Dan E. Demco, Thomas Eckert, Walter Richtering, Andrij Pich  
*Macromolecules* **2010** 43 (9), 4331-4339
44.       **Thermoreversible Micelle Formation Using a Three-Armed Star Elastin-like Polypeptide**  
Ali Ghoorchian, James T. Cole, Nolan B. Holland  
*Macromolecules* **2010** 43 (9), 4340-4345
45.       **Phase-Separation-Induced Gelation of Poly(9,9-dioctylfluorene)/Methylcyclohexane Solution**  
Chun-Yu Chen, Chih-Shun Chang, Siao-Wun Huang, Jean-Hong Chen, Hsin-Lung Chen, Ching-Iuan Su, Show-An Chen  
*Macromolecules* **2010** 43 (9), 4346-4354
46.       **Responsive Gels Based on a Dynamic Covalent Trithiocarbonate Cross-Linker**  
Renaud Nicolaÿ, Jun Kamada, Abigail Van Wassen, Krzysztof Matyjaszewski  
*Macromolecules* **2010** 43 (9), 4355-4361
47.       **Thermally Driven Giant Bending of Liquid Crystal Elastomer Films with Hybrid Alignment**  
Yoshiki Sawa, Kenji Urayama, Toshikazu Takigawa, Antonio DeSimone, Luciano Teresi  
*Macromolecules* **2010** 43 (9), 4362-4369
48.       **Synthesis and Mechanical Properties of a Nanocomposite Gel Consisting of a Tetra-PEG/Clay Network**  
Mieko Fukasawa, Takamasa Sakai, Ung-il Chung, Kazutoshi Haraguchi  
*Macromolecules* **2010** 43 (9), 4370-4378
49.       **Measurement of Phase Transition Free Energies in Polyelectrolyte–Surfactant Complexes**  
Michael Leonard, Helmut H. Strey  
*Macromolecules* **2010** 43 (9), 4379-4383
50.       **Swelling Study of Responsive Polyelectrolyte Brushes Grafted from Mica Substrates: Effect of pH, Salt, and Grafting Density**  
B atrice Lego, W. G. Skene, Suzanne Giasson  
*Macromolecules* **2010** 43 (9), 4384-4393
51.       **Theory of Biopolymer Stretching at High Forces**  
Ngo Minh Toan, D. Thirumalai  
*Macromolecules* **2010** 43 (9), 4394-4400
52.       **Rheology and Structure of Entangled Telechelic Linear and Star Polyisoprene Melts**  
E. van Ruymbeke, D. Vlassopoulos, M. Mierzwa, T. Pakula, D. Charalabidis, M. Pitsikalis, N. Hadjichristidis  
*Macromolecules* **2010** 43 (9), 4401-4411
53.       **Constitutive Curve and Velocity Profile in Entangled Polymers during Start-Up of Steady Shear Flow**  
Keesha A. Hayes, Mark R. Buckley, Haibo Qi, Itai Cohen, Lynden A. Archer  
*Macromolecules* **2010** 43 (9), 4412-4417
54.       **Simulations of Terminally Charged Dendrimers with Flexible Spacer Chains and Explicit Counterions**  
J. S. Klos, J.-U. Sommer  
*Macromolecules* **2010** 43 (9), 4418-4427
55.       **Copper-Catalyzed Bimolecular Coupling of  $\alpha,\omega$ -Dibromide-Functionalized Poly( $\epsilon$ -caprolactone)**  
Xiaoze Jiang, Maria Vamvakaki, Ravin Narain  
*Macromolecules* **2010** 43 (9), 4428-4428