

Marc Andrew Hillmyer

McKnight Presidential Endowed Chair, University of Minnesota

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EDUCATION

Ph.D. Chemistry, California Institute of Technology 1994
B.S. Chemistry, University of Florida 1989

APPOINTMENTS

College of Science and Engineering – University of Minnesota
Director, Center for Sustainable Polymers 2009–present
Department of Chemistry – University of Minnesota
McKnight Presidential Endowed Chair 2015–present
Distinguished University Teaching Professor 2014–present
Distinguished McKnight University Professor 2010–present
Professor 2009–2010
Elmore H. Northey Associate Professor, Professor 2004–2007, 2007–2009
Associate Professor 2002–2004
Assistant Professor 1997–2002
Department of Chemical Engineering and Materials Science – University of Minnesota
Graduate Faculty Member 1999–present
Postdoctoral Research Associate 1994–1997

HONORS

Entrepreneurial Researcher Award (UMN) 2017
McKnight Presidential Endowed Chair (UMN) 2015
NSF Division of Materials Research, Special Creativity Extension 2014–2016
Postbaccalaureate, Graduate, and Professional Education Award (UMN) 2014
PTN Medema Award 2013
LE STUDIUM research fellow, Université d'Orléans/CNRS 2012–2013
Fellow of the Polymer Chemistry (POLY) Division of the ACS 2012
Carl S. Marvel Creative Polymer Chemistry Award (POLY division of the ACS) 2011
Distinguished McKnight University Professorship (UMN) 2010
IonE Fellow (UMN) 2010
George W. Taylor/IT Alumni Society Award for Distinguished Teaching (UMN) 2010
Fellow of the American Association for the Advancement of Science (AAAS) 2009
Visiting Professor, Université d'Orléans, France 2008
Arthur K. Doolittle Award (jointly awarded, PMSE division of the ACS) 2007
George Taylor Distinguished Research Award (UMN) 2007
Leverhulme Visiting Professor, University of Cambridge 2005–2006
Best Chemistry Instructor Award (UMN Institute of Technology Student Board) 2005
Elmore H. Northey Professorship (UMN) 2004–2009
George Taylor Career Development Award (UMN) 2002
National Science Foundation CAREER Award 2001–2005
Packard Fellowship for Science and Engineering 2000–2005
Schlumberger Limited Foundation Award 2000, 2001
Camille Dreyfus Teacher-Scholar Award 2000–2005
McKnight Land-Grant Professorship (UMN) 2000–2002
DuPont Young Professor Grant 1999–2001
Research Corporation Research Innovation Award 1998–2001
3M Company Non-tenured Faculty Award 1998–2002
IBM Graduate Research Fellowship 1992
American Institute of Chemists Student Award 1989
President's Recognition Award (UF); College Scholar Award (UF); Summerville Fellowship in Chemistry (UF) 1989

SELECTED INVITED LECTURES

Aldrich Lecture - UC Berkeley, Department of Chemistry – Berkeley, California	January 2017
Plenary Lecture Intl. Conf. on Polymer Sci. & Tech. (MACRO2017) – Thiruvananthapuram, India	January 2017
Plenary Lecture - Warwick Polymers 2016 – Warwick, England	July 2016
Plenary Lecture - 8 th Annual Triangle Soft Matter Workshop – Durham, North Carolina	May 2016
Plenary Lecture - 1 st Annual Green Materials Symposium – London, England	December 2015
Whitby Memorial Lectureship - University of Akron, Dept. of Polymer Sci. – Akron, Ohio	May 2015
CSE Public Lecture – UMN College of Science and Engineering – Minneapolis, Minnesota	January 2015
Dow Lecture in Sustainability - Colorado St. Univ., Dept. of Chem. – Ft. Collins, Colorado	October 2014
Xerox Lecture - Univ. of British Columbia, Dept. of Chemistry – Vancouver, Canada	September 2014
Keynote Lecture - Canadian High Polymer Forum – Gananoque, Canada	July 2014
Bayer Lecture - Cornell University, Dept. of Chemistry & Chemical Biology – Ithaca, NY	November 2013
Aldrich Lecture - Columbia University, Department of Chemistry – New York, NY	October 2013
Plenary Lecture - 2013 Dutch Polymer Days Conference – Lunteren, The Netherlands	March 2013
Plenary Lecture - Warwick 2012 – Warwick, England	July 2012
Grande Conférence IUPAC - Université de Montréal, Dept. of Chem.– Montreal, Canada	March 2012
Keynote Lecture - 2011 Australasian Polymer Symposium – Coffs Harbour, Australia	February 2011
Plenary Lecture - Int. Symp. on Nano Structured Polymeric Materials – Pohang, Korea	November 2010
Plenary Lecture - Virginia Tech Technical Conference and Review – Blacksburg, Virginia	October 2010
Plenary Lecture - 9 th National Graduate Research Polymer Conference – Chapel Hill, NC	June 2010

PROFESSIONAL SERVICE

Co-organizer of “Porous Polymers 2016” an ACS symposium	2015–2016
Co-organizer for “Sustainable Polymers” an ACS workshop	2016
<i>Chair, Chair Elect, Vice Chair</i> – ACS Division of Polymer Chemistry	2017, 2016, 2015
Chair, Vice Chair – Polymer Chemistry Gordon Conference	2015, 2013
Scientific Committee for a symposium at the E-MRS 2015 Spring Meeting	2015
Co-organizer of “Sustainable Resources and Renewable Resources” at 14 th Pacific Polymer Conf.	2015
Co-organizer of “Porous Polymers 2014” an ACS symposium	2014
Co-organizer of “Sustainable Polymers, Processes and Product Applications” an ACS symposium	2014
ACS Division of Polymer Chemistry Awards Committee co-chair	2011–2014
Co-organizer for “Sustainable Polymers” an ACS workshop	2013
Presidential Green Chemistry Award Challenge selection panel	2012
International Advisory Committee MACRO 2012 - IUPAC World Polymer Congress	2012
Co-organizer of “Next-Generation Renewable Polymers” an ACS symposium	2012
Steering Committee - Minnesota Green Chemistry Forum	2010–2012
Scientific Committee for 19th Annual BioEnvironmental Polymer Society Meeting	2011
Participant in Chemical Sciences and Society Symposia (CS3) meeting on “Sustainable Materials”	2010
Co-organizer of “Functional Block Copolymer Assemblies” a PacifiChem symposium	2010
Co-organizer of “Porous Polymers” an ACS symposium	2009
Associate Editor for <i>Macromolecules</i>	2008–present
Co-editor for “Biorenewable Polymers” special issue of <i>Polymer Reviews</i>	2007
Co-organizer of “Polymers from Renewable Resources” an ACS Symposium	2007
Editorial Advisory Board <i>Macromolecular Chemistry and Physics</i>	2007–2010
Co-organizer of “Multicompartment Micelles” an ACS Symposium	2006
International Advisory Committee for the RSC conference <i>Materials Chemistry 8</i>	2006–2007
Editorial Advisory Board <i>Polymer</i>	2005–2009
Los Alamos National Lab Center for Integrated Nanotechnologies proposal review panel	2005–2007
Editorial Advisory Board <i>Polymer Reviews</i>	2005–2010
Editorial Advisory Board <i>Macromolecules</i>	2004–2006
Co-organizer of “Polymer Chemistry for Physicists” short course, APS Meeting	2003
Co-editor for “Materials for the 21st Century Special Issue” for <i>J. Phys. Org. Chem.</i>	2000
Co-organizer “Macromolecular Synthesis by Selective Chemical Modification” an ACS Symposium	2000
ACS Division of Polymer Chemistry co-rep. to the ACS Macromolecular Secretariat	1998–2007

PEER-REVIEWED PUBLICATIONS

- (350) Larsen, M. B.; Van Horn, J. D.; Wu, F.; Hillmyer, M. A. – Intrinsically Hierarchical Nanoporous Polymers via Polymerization-Induced Microphase Separation – *Macromolecules* **2017**, *50*, 4363–4371. [10.1021/acs.macromol.7b00808](https://doi.org/10.1021/acs.macromol.7b00808)
- (349) Schulze, M. W.; Lewis III, R. M.; Lettow, J. H.; Hickey, R. J.; Gillard, T. M.; Hillmyer, M. A.; Bates, F. S. – Conformational Asymmetry and Quasicrystal Approximants in Linear Diblock Copolymers – *Phys. Rev. Lett.* **2017**, *118*, 207801. [10.1126/science.aam7212](https://doi.org/10.1126/science.aam7212)
- (348) Kim, K.; Schulze, M. W.; Arora, A.; Lewis III, R. M.; Hillmyer, M. A.; Dorfmann, K. D.; Bates, F. S. – Thermal processing of diblock copolymer melts mimics metallurgy – *Science* **2017**, *356*, 520–523. [10.1126/science.aam7212](https://doi.org/10.1126/science.aam7212)
- (347) Watts, A.; Kurokawa, N.; Hillmyer, M. A. – Strong, Resilient, and Sustainable Aliphatic Polyester Thermoplastic Elastomers – *Biomacromolecules* **2017**, *18*, 1845–1854. [10.1021/acs.biomac.7b00283](https://doi.org/10.1021/acs.biomac.7b00283)
- (346) Schneiderman, D. K.; Hillmyer, M. A. – 50th Anniversary Perspective: There Is a Great Future in Sustainable Polymers – *Macromolecules* **2017**, *50*, 3733–3749. [10.1021/acs.macromol.7b00293](https://doi.org/10.1021/acs.macromol.7b00293)
- (345) Chopade, S. A.; Au, J. G.; Li, Z.; Schmidt, P. W.; Hillmyer, M. A.; Lodge, T. P. – Robust Polymer Electrolyte Membranes with High Ambient-Temperature Lithium-Ion Conductivity via Polymerization-Induced Microphase Separation – *ACS Appl. Mater. Interfaces* **2017**, *9*, 14561–14565. [10.1021/acsami.7b02514](https://doi.org/10.1021/acsami.7b02514)
- (344) Ricarte, R. G.; Li, Z.; Johnson, L. M.; Ting, J. M.; Reineke, T. M.; Bates, F. S.; Hillmyer, M. A.; Lodge, T. P. Direct Observation of Nanostructures during Aqueous Dissolution of Polymer/Drug Particles – *Macromolecules* **2017**, *50*, 3143–3152. [10.1021/acs.macromol.7b00372](https://doi.org/10.1021/acs.macromol.7b00372)
- (343) Li, Z.; Johnson, L. M.; Ricarte, R. G.; Yao, L. J.; Hillmyer, M. A.; Bates, F. S.; Lodge, T. P. – Enhanced Performance of Blended Polymer Excipients in Delivering a Hydrophobic Drug through the Synergistic Action of Micelles and HPMCAS – *Langmuir* **2017**, *33*, 2837–2848. [10.1021/acs.langmuir.7b00325](https://doi.org/10.1021/acs.langmuir.7b00325)
- (342) John, A.; Hillmyer, M. A.; Tolman, W. B. – Anhydride-Additive-Free Nickel-Catalyzed Deoxygenation of Carboxylic Acids to Olefins – *Organometallics* **2017**, *36*, 506–509. [10.1021/acs.organomet.6b00940](https://doi.org/10.1021/acs.organomet.6b00940)
- (341) Johnson, L. M.; Li, Z.; LaBelle, A. J.; Bates, F. S.; Lodge, T. P.; Hillmyer, M. A. – Impact of Polymer Excipient Molar Mass and End Groups on Hydrophobic Drug Solubility Enhancement – *Macromolecules* **2017**, *50*, 1102–1112. [10.1021/acs.macromol.6b02474](https://doi.org/10.1021/acs.macromol.6b02474)
- (340) Schulze, M. W.; Hillmyer, M. A. – Tuning Mesoporosity in Cross-Linked Nanostructured Thermosets via Polymerization-Induced Microphase Separation – *Macromolecules* **2017**, *50*, 997–1007. [10.1021/acs.macromol.6b02570](https://doi.org/10.1021/acs.macromol.6b02570)
- (339) Radlauer, M. R.; Sinturel, C.; Asai, Y.; Arora, A.; Bates, F. S.; Dorfman, K. D.; Hillmyer, M. A. – Morphological Consequences of Frustration in ABC Triblock Polymers – *Macromolecules* **2017**, *50*, 446–458. [10.1021/acs.macromol.6b02112](https://doi.org/10.1021/acs.macromol.6b02112)
- (338) Zhang, J.; Schneiderman, D. K.; Li, T.; Hillmyer, M. A.; Bates, F. S. – Design of Graft Block Polymer Thermoplastics – *Macromolecules* **2016**, *49*, 9108–9118. [10.1021/acs.macromol.6b02033](https://doi.org/10.1021/acs.macromol.6b02033)
- (337) Todd, A. D.; McEneaney, R. J.; Topolkarayev, V. A.; Macosko, C. W.; Hillmyer, M. A. – Reactive Compatibilization of Poly(ethylene terephthalate) and High-Density Polyethylene Using Amino-Telechelic Polyethylene – *Macromolecules* **2016**, *49*, 8988–8994. [10.1021/acs.macromol.6b02080](https://doi.org/10.1021/acs.macromol.6b02080)
- (336) Moughton, A. O.; Sagawa, T.; Yin, L.; Lodge, T. P. – Multicompartment Micelles by Aqueous Self-Assembly of μ -A(BC)_n Miktobrush Terpolymers – *ACS Omega* **2016**, *1*, 1027–1033. [10.1021/acsomega.6b00284](https://doi.org/10.1021/acsomega.6b00284) [Correction: [10.1021/acsomega.7b00327](https://doi.org/10.1021/acsomega.7b00327)]
- (335) Neitzel, A. E.; Haversang, T. J.; Hillmyer, M. A. – Organocatalytic Cationic Ring-Opening Polymerization of a Cyclic Hemiacetal Ester – *Ind. Eng. Chem. Res.* **2016**, *55*, 11747–11755. [10.1021/acs.iecr.6b03114](https://doi.org/10.1021/acs.iecr.6b03114)
- (334) Vanderlaan, M. E.; Hillmyer, M. A. – “Uncontrolled” Preparation of Disperse Poly(lactide)-block-poly(styrene)-block-poly(lactide) for Nanopatterning Applications – *Macromolecules* **2016**, *49*, 8031–8040. [10.1021/acs.macromol.6b02014](https://doi.org/10.1021/acs.macromol.6b02014)