

POLY Awards  
Herman F. Mark Award in Polymer Chemistry  
1998-2018

## 2017 Herman Mark Award in Polymer Chemistry

Professor **Edward T. Samulski** (University of North Carolina at Chapel Hill) designed, and now chairs, the Department of Applied Physical Sciences, Carolina's first new science department in 40 years. In 1989 he established UNC's internationally recognized polymer chemistry program through judicious hiring and the development of curricula integrated with traditional chemistry courses, all while maintaining a top research program spanning a range of topics based on the interplay of basic polymer physics and inherent molecular orientational order found in liquid crystals. His major advances include adapting nuclear magnetic resonance to map the stress in elastic networks and sheared polymer melts ("RheoNMR"), and the discovery of a biaxial nematic, a phase with implications for fabricating ultra-high strength polymers. He co-founded two startups, Allotropica Technologies (2008), which makes "extreme materials for extreme conditions," and Carbon (2013), which pioneered a new 3D printing method based on oxygen-inhibited free radical polymerization. He served as a senior science advisor to the State Department (2005-06). A special 1/2 day award symposium and award presentation will be held this fall at the ACS National Meeting in Washington, DC.



Edward Samulski, Marc Hillmyer (POLY Chair)

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## 2015 Herman Mark Award in Polymer Chemistry

**Tim P. Lodge** (Regents Professor at the Univ. Minnesota), is recognized with the Herman F. Mark Polymer Chemistry Award for extraordinary contributions to the field of polymer science and engineering through insightful research, inspiring education of students and postdocs, and leadership in service to the community. His original contributions to the understanding of polymer solutions, particularly involving ionic liquids, have greatly advanced the fundamental underpinnings of the discipline while providing society with exciting new technology. Inspirational training of a cadre of young scientists and engineers, complimented by co-authorship of a penetrating textbook places Lodge among the most impactful educators in the field. As editor-in-chief of *Macromolecules*, and founding editor of *ACS Macro letters*, he has provided unsurpassed leadership in maintaining the highest standards of publication in the world.



Brad Olsen, Richard Turner (Elsevier), Rigoberto Advinula (POLY Chair), Tim Lodge

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## 2013 Herman Mark Award in Polymer Chemistry

**Ken Wagener** (George Bergen Butler Professor of Polymer Chemistry, Dept. of Chemistry, Univ. Florida) was recognized as an outstanding polymer chemist who is highly regarded for his passion for education at the undergraduate and graduate levels. His research group pioneered the ADMET reaction, which is used worldwide, leading to numerous tangible collaborations in Germany, Japan, and several laboratories in the USA. Prior to joining UF, he served in several industrial managerial positions for 11 years within Akzo Nobel. Other prestigious awards in recent times include the 2012 Visiting Professorship at ETH/Zurich, MPI/Polymers Mainz, and Kyoto University, Japan; being inducted as a 2011 ACS Fellow, the 2010 ACS Herty Award, and the 2009 Max Planck Institution for Polymer Research Award.



Greg Tew (POLY Chair), Ken Wagener, Richard Turner (Elsevier editor)

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## 2011 Herman Mark Award in Polymer Chemistry

**Krzysztof (Kris) Matyjaszewski** (J. C. Warner Professor of the Natural Sciences at Carnegie Mellon) received the 2011 Herman F. Mark Award. He is an outstanding polymer chemist who is highly regarded for his vision, his leadership in education, and his many collaborative research efforts that have yielded significant innovations in polymer chemistry. He is perhaps best known for the discovery of atom transfer radical polymerization (ATRP), a novel method of polymer synthesis that has revolutionized the way macromolecules are made. He has won a long list of prestigious awards for his work. In 1995, POLY awarded Kris the Carl S. marve Creative Polymer Chemistry Award. Kris is editor-in-chief of Progress in Polymer Science and an editorial board member of Polymer.



Katie Hunt (former ACS Preside3nt), Axel Muller (Senior Editor of Polymers), Kris Matyjaszewski, Joe Mabry (POLY Chair), Stephen Cheng (Senior Edirof of Polymer), Rigoberto Advincula (POLY Alt. Councilor)

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## 2009 Herman Mark Award in Polymer Chemistry

**Jean M. J. Frechet** (Henry Rapaport Chair of Organic Chemistry, Dept. of Chemistry, UC Berkeley) received the 2009 Herman F. Mark Award in Polymer Chemistry for his seminal contributions to photolithography and his pioneering work on dendrimers. He has an international reputation for excellence in polymer science. During a career beginning as an assistant professor at the University of Ottawa in 1973, he has authored nearly 800 scientific papers and holds over 70 US Patents. His research areas include organic synthesis and polymer chemistry applied to nanoscience and nanotechnology with emphasis on the design, fundamental understanding, synthesis, and applications of functional macromolecules.



Dennis Smith (POLY Chair) and Jean M. J. Frechet

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**2007 Herman Mark Award in Polymer Chemistry**

Robert Langer

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## **2005 Herman Mark Award in Polymer Chemistry**

The recipient of the 2005 award is Professor **Donald R. Paul**. He is the Director of the Texas Materials Institute and holds the Ernest Cockrell Senior Chair in Engineering at The University of Texas at Austin.

Dr. Paul is recognized for his research and leadership in major areas of Polymer Science and Engineering. He was elected to the National Academy of Engineers. He has received many awards from the Society of Plastics Engineers, including the Education Award and the International Award. He has been elected a Fellow of the American Chemical Society PMSE division, a fellow of the American Institute of Chemical Engineers, and was also elected fellow of the Society of Plastic Engineers. He has been cited more than 20,000 times by Science Citation Index for his timely and noteworthy research, and has been listed in the top 200 of the 1000 most cited chemists over the last 20 years.

Professor Paul's research has focused on broad areas of polymer science and engineering, including polymer blends, membranes for gas separation, permeability aspects in general, and polymer processing. The blends research has led to numerous publications and several books and book chapters dealing with the fundamentals and dynamics of polymer-polymer interactions, the use of reactive compatibilizers in multiphase systems, such as ASB, control of phase morphology during processing by both physical and chemical means, and in the recently emphasized area of polymer nanocomposites involving highly exfoliated clay systems. His fundamental work on diffusion has led to improved materials, while his basic work on nanocomposites has been directed toward processing strategies for exfoliating layered silicates in polymer matrices, and related nanocomposites.

He has been very active in the American Institute of Chemical Engineers, as well as in the American Chemical Society. He has been an active founding member of the North American Membrane Society, and has served on several important committees of the National Academy of Engineering. He has also been part of many National Research Council committees, advising the Department of Defense, the Environmental Protection Agency, and the National Science Foundation. He is the Editor of Industrial Engineering Chemistry. He has been on the editorial board of Journal of Membrane Science, Polymer Engineering and Science, Journal of Applied Polymer Science, Journal of Polymer Science: Physics, and Polymer. He has contributed to many books, both as an editor and as editor of proceedings/journals, and has published more than 500 refereed papers.

The Herman F. Mark award was established in 1976 and is administered and sponsored by the ACS Polymer Chemistry Division. The award's purpose is to recognize outstanding research and leadership in polymer science. The award consists of a plaque and an honorarium of \$2000. The award is usually presented biennially in odd-numbered years. The recipient is expected to present an address at a symposium organized in his/her honor. Reasonable travel expenses to the symposium are paid in addition to the honorarium. The 2005 award will be presented at the Fall meeting of the American Chemical Society Polymer Chemistry Division.

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**2002 Herman Mark Award in Polymer Chemistry**

William J. MacKnight



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## **2000 Herman Mark Award in Polymer Chemistry**

In celebration of the 50th Anniversary, The Division of Polymer Chemistry of the American Chemical Society has selected the following six prominent scientists to receive the Herman F. Mark Award in Polymer Chemistry, sponsored by The Dow Chemical Foundation:

**Professor Murray Goodman**

Department of Chemistry and Biochemistry, University of California at San Diego

**Professor Robert H. Grubbs**

Division of Chemistry and Chemical Engineering, California Institute of Technology

**Professor Henry K. Hall, Jr.**

Department of Chemistry, The University of Arizona

**Professor Robert Lenz**

Department of Polymer Science and Engineering, University of Massachusetts

**Professor Leo Mandelkern**

Department of Chemistry, Florida State University

**Professor Otto Vogl**

Department of Polymer Science and Engineering, University of Massachusetts

The award recognizes outstanding research and leadership in polymer science and consists of a plaque and an honorarium of \$2000. The award is presented biennially in even-numbered years and will be presented, this year, at the Plenary Herman F. Mark Award Symposium held during POLY Millennium 2000, Tuesday, December 12, 2000.

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## **1998 Herman Mark Award in Polymer Chemistry**

The recipient of the 1998 Herman F. Mark Polymer Chemistry Award for outstanding research and leadership in polymer science is Prof. **James Economy** from the University of Illinois.

Dr. Economy has played a pivotal role over the past 35 years in the design and development of a number of new polymer systems such as liquid crystalline materials for structural uses, novel thermosetting resins that can be recycled, flame resistant textiles, new fibers for environmental control, microelectronic devices and inorganic preceramics. This body of work not only represents landmark contributions to the design of novel materials for each of these areas, but has provided a fundamental base of understanding which continues to provide stimulus for the design of further polymeric systems.

He has played a key leadership role not only in industrial management of polymer research, but also in his university and societal activities. Prof. Economy's career has spanned industrial responsibilities at Allied Chemical, Carborundum and IBM. Currently he is Head of the Materials Science and Engineering Department at the University of Illinois. He was elected to the National Academy of Engineering and is a fellow of the AAS.

He has been active nationally and internationally in many organizations including the ACS Division of Polymer Chemistry (Chairman, 1985) and IUPAC Macromolecular Division (President, 1994-1998). He has authored or co-authored over 170 papers, numerous books and book chapters, and more than 60 U.S. Patents.

The award is sponsored by the Dow Chemical Company Foundation and will be presented to Dr. Economy at the 1998 Biennial Meeting of the ACS Polymer Division held at the Williamsburg Inn, Williamsburg, VA, on November 22-25.