



DIVISION OF POLYMERIC MATERIALS: SCIENCE & ENGINEERING

2015 PMSE Fellow Ceremony

The American Chemical Society Division of Polymeric Materials: Science and Engineering (PMSE) has just completed its process to select a new class of PMSE Fellows for 2015 and the following distinguished PMSE members have been chosen:

- Hatsuo Ishida
- Qinghuang Lin
- Michael Mackay
- Greg Rutledge
- Uli Wiesner

They will be inducted as the 15th class of PMSE Fellows at the Denver ACS Meeting during the joint PMSE/POLY Awards Reception on Wednesday evening, March 25 2015. PMSE is pleased to welcome this distinguished group of polymer scientists and engineers to the ranks of fellows.

A short description of their work up to the point of the induction as a PMSE Fellow is on the following pages.



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2015 PMSE Fellow Induction Biographies

2015 PMSE Fellow

Hatsuo Ishida

Chulalongkorn University



“For pioneering contributions to the molecular characterization of composite interfaces and the development of polybenzoxazines, a new class of phenolic polymers”

Professor Ishida has pioneered in the molecular characterization of composite interfaces. His activity extends to synthesis, surface vibrational spectroscopy, and rheology and processing of composite materials. He has also pioneered in the development of new, very versatile polymers called polybenzoxazines. Professor Ishida received the following awards among others: The Global Salute to Polymers Award (The American Chemical Society). The Alexander von Humboldt Award for Senior Scientist, Humboldt Foundation, Germany, Oct. (1999); Eminent Scientist, Institute for Physical and Chemical Sciences (RIKEN:Japan); Award for Excellence in Adhesion Research, The Society of Adhesion; The International Research Award, Society of Plastic Engineers (SPE), Inaugural Faculty Distinguished Research Award (CWRU). He is both SAMPE Fellow and SPE Fellow, and now an ACS PMSE Fellow.

He has been the coordinator for establishing a graduate college in polymers and petrochemistry at Chulalongkorn University, Bangkok, Thailand, over the past 25 years. He has 11 edited and translated books, 40 disclosures and patents, and over 450 papers to his credit. His h-index is 64 with total citation of 14000. He is a member of the editorial board of The Journal of Adhesion, Journal of Nanostructured Polymers and Nanocomposites, Polymers, Journal of Materials, International Research Journal of Pure and Applied Chemistry, Austin Journal of Nanomedicine & Nanotechnology, International Journal of Nano Studies & Technology, Journal of Nanotechnology and Material Science and Recent Patents on Materials Science, and Editor-in-Chief of Composite Interfaces, and Associate Editor of Polymers and Polymer Composites, and Frontiers in Materials: Composites.



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2015 PMSE Fellow

Qinghuang Lin
IBM Almaden



“For important contributions to advanced functional materials for modern electronics”

Qinghuang Lin is a Research Staff Member and a manager at IBM Thomas J. Watson Research Center in Yorktown Heights, New York. He received his B.E. and M.S. degrees from Tsinghua University, Beijing, China and his Ph.D. degree from the University of Michigan—Ann Arbor, Michigan. An IBM Master Inventor, Dr. Lin is an inventor or co-inventor of more than 70 granted US patents and over 70 pending US patents. He is a recipient of 23 IBM Invention Achievement Awards. Dr. Lin is an editor or a co-editor of 2 books and 7 conference proceedings volumes and the author and co-author of over 65 technical papers. He is an Associate Editor of *Journal of Micro/Nanolithography, MEMS, and MOEMS* and served as a Guest Editor of *Journal of Materials Research* focus issue on self-assembly and directed assembly of advanced materials. In 2002, Dr. Lin, along with colleagues, received an IBM Research Division Achievement Award for “invention, development and implementation of 248nm bilayer resist technology in manufacturing.” This IBM bilayer resist technology was also part of the 40 years of innovations in semiconductor technology that won IBM 2004 US National Medal of Technology. In 2014, Dr. Lin was named a Fellow of the American Chemical Society (ACS Fellow). He is Chair-Elect of the American Chemical Society: Polymeric Materials Science and Engineering (PMSE) division. Dr. Lin has been active in serving the scientific communities, having delivered over 50 keynote or invited talks and served as conference chair, co-chair, vice chair, organizers and organizing committees of numerous IBM, national and international conferences. He is a member of two engineering honor societies: Tau Beta Pi and Alpha Sigma Mu.



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2015 PMSE Fellow

Michael Mackay

IBM Almaden



“For critical insights into the improvement of polymer performance through the inclusion of nanoparticles in making novel devices and materials”

Michael E. Mackay, Ph.D., received his undergraduate degree in chemical engineering with distinction from the University of Delaware then worked for Proctor and Gamble prior to attending graduate school at the University of Illinois (Urbana) where he received M.S. and Ph.D. degrees in chemical engineering. He subsequently became a postdoctoral fellow at the University of Melbourne (Australia) and then has had positions at the University of Queensland (Australia), Stevens Institute of Technology, Michigan State University and is presently the Distinguished Professor of Materials Science and Engineering at the University of Delaware in the Materials Science and Engineering Department. He is a nationally known leader in nanotechnology, specializing in how nanoparticles improve polymer performance and their use in making novel devices and materials. Recently, he has focused his research efforts to make polymer-based solar cells that can be made cheaply on any surface.



DIVISION OF POLYMERIC MATERIALS: SCIENCE & ENGINEERING

2015 PMSE Fellow

Gregory C. Rutledge

Massachusetts Institute of Technology

“For outstanding contributions in the use of computer simulations to understand the underlying physics and chemistry of polymers, especially with regard to crystallization”

Gregory C. Rutledge is the Lamot du Pont Professor in the Department of Chemical Engineering at the Massachusetts Institute of Technology. Since joining the faculty at MIT, he has served as Director of the Program in Polymer Science and Technology and as Executive Officer in the Department of Chemical Engineering. Prof. Rutledge researches in the area of molecular engineering of soft condensed matter, in particular the development of process-structure-property relationships of engineered polymers, through the use of molecular simulation and experiment. Since 2001 he and his coworkers have published extensively on the fabrication, properties and applications of polymeric nanofibers and nonwoven membranes formed by the process of electrospinning. He is an author or co-author of over 180 books, book chapters and technical articles in peer reviewed journals. He holds 11 patents or applications pending. Prof. Rutledge is an editor for the *Journal of Materials Science* and the *Journal of Engineering Fibers and Fabrics*, and editorial board member for *Macromolecules* and *Polymer*. He is a 1994 recipient of the National Science Foundation Young Investigator Award, the H.A. Morton Distinguished Visiting Professor in the Department of Polymer Science at the University of Akron in 2000, a Fellow of the American Physical Society since 2005, and the 2014 recipient of the Founders Award of The Fiber Society.



DIVISION OF POLYMERIC MATERIALS: SCIENCE & ENGINEERING

2014 PMSE Fellow

Ulrich Wiesner

Cornell University

“For pioneering research and fundamental studies in block copolymer-inorganic hybrids and fluorescent silica nanoparticles”

Ulrich Wiesner studied Chemistry at the University of Mainz, Germany, and UC Irvine, CA, gaining his Ph.D. in 1991 with work at the Max-Planck-Institute for Polymer Research (MPI-P), Mainz. After a two year postdoc at E.S.P.C.I. in Paris, France, in 1993 he returned to the MPI-P where he finished his Habilitation in 1998. He joined the Cornell University, NY, MS&E faculty in 1999 as a tenured Associate Professor, became a Full Professor in 2005, and since 2008 is the Spencer T. Olin Professor of Engineering. Since his arrival at Cornell he has worked at the interface between polymer science and inorganic/solid-state chemistry with the goal to generate multifunctional nanomaterials for applications including energy conversion and storage, clean water, and nanomedicine.