

POLY Awards
Industrial Polymer Scientist Award-Previous Awardees
2010-2018

2018 Industrial Polymer Scientist Award

Qinghuang Lin from IBM received the 2018 Industrial Polymer Scientist Award: This award recognizes outstanding industrial innovation and creativity in the application of Polymer Science, conducted by individual scientists or research teams and is sponsored by the POLY Industrial Advisory Board (IAB).

Qinghuang Lin is a Research Staff Member and a Project Manager at the IBM Thomas J. Watson Research Center in Yorktown Heights, New York. He received his B.E. and M.S. degrees from Tsinghua University, China and his Ph.D. degree from the University of Michigan. For more than twenty years, he made important and sustained contributions to advanced functional polymers for modern electronics. He designed, invented, developed and implemented advanced functional electronic materials to manufacture ever smaller, faster and cheaper microchips for modern electronics. His inventions have been used to make microchips for some of the most popular electronics devices in the world today. The IBM 248 nm bilayer resist technology he invented and developed, along with his colleagues, was part of the 40 years of innovations in semiconductor technology that won IBM the 2004 US National Medal of Technology. An IBM Master Inventor, he is an inventor or co-inventor of more than 95 US patents. He is an editor or co-editor of 14 conference proceedings, 3 journal special issues and the author and co-author of over 75 technical papers. He is an Associate Editor of Journal Micro/Nanolithography. In 2014, he was named an ACS Fellow. Later he was named a PMSE Fellow and SPIE Fellow. Dr. Lin is a Past Chair of the American Chemical Society Division of Polymeric Materials Science and Engineering (PMSE division). He has chaired numerous national and international conferences.



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2016 Industrial Polymer Scientist Award

Joel Oxman from 3M received the 2016 Industrial Polymer Scientist Award: This award recognizes outstanding industrial innovation and creativity in the application of Polymer Science, conducted by individual scientists or research teams and is sponsored by the POLY Industrial Advisory Board (IAB).

Joel Oxman (3M ESPE Dental Center) received his B.A. in Chemistry from Grinnell College and his PhD from Northwestern four years later. He joined the 3M Company thereafter where he has since become the world's leading expert on the fundamentals and applications of photopolymerization-based chemistry. During his 32 years at 3M and while being an ambassador to many scientific constituencies, Joe has developed numerous photocured products based on his 90+ patents and 95 publications that have led to several billion dollars in product sales based on photopolymer chemistry.

A full symposium was held during the Fall ACS National meeting in honor of Dr. Oxman. Special thanks to the Industrial Advisory Board (IAB), for their continued sponsorship of this outstanding award program.



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2014 Industrial Polymer Scientist Award

Robert D. Allen of the IBM Almaden Research Center has been named the recipient of the 2014 Industrial Polymer Science Award sponsored by the Industrial Advisory Board of the American Chemical Society's Division of Polymer Chemistry. This award is routinely quite competitive, and this year was no exception with a number of outstanding nominees.

This award, in recognition of his outstanding industrial innovation and creativity in the application of Polymer Science, will be presented by the Division of Polymer Chemistry at an awards symposium to be held at the ACS National Meeting in San Francisco, Fall 2014.

Robert D. Allen has made, during his nearly 30 years as a researcher at IBM, seminal contributions to the development of photoresists - the patternable polymers that make microelectronics possible. In so doing, he is one of the pioneers of nanotechnology. He has invented and then led the development of photoresists for 193 nm lithography making possible today's remarkable computers and communication devices. These photoresists have enabled the semiconductor industry to follow Moore's Law even after it was predicted to be impossible. In his role as research manager, he is involved in the implementation of directed self-assembly, thought by many to be the next generation patterning method. Dr. Allen received his Ph.D. under the direction of Jim McGrath at VT. He was also recognized recently by membership in the National Academy of Engineering as he is one of the premier American industrial chemists. The Industrial Advisory Board is pleased to announce that Dr. Allen is the 2014 Industrial Polymer Scientist Awardee.



D. Gerbi (IAB), Kate Beers (POLY Chair), R. Allen (IBM), Travis Baughman (IAB)

2012 Industrial Polymer Scientist Award

The ACS Division of Polymer Chemistry is pleased to announce the winner of the 2012 Industrial Polymer Scientist Award, **Dr. Babu N. Gaddam**. As a 3M Corporate Scientist and adjunct professor at the University of Minnesota and the University of St. Thomas, he is widely known in the polymer community for his world-class expertise in polymer science. For more than 30 years, he has continually made groundbreaking discoveries that have changed and shaped the field of polymer chemistry. As an industrial scientist his inventions have led to significant commercial products ranging from everyday items, like Post-it Notes to pioneering work in the use of renewable resources, and perhaps even more importantly to advanced materials in health care including advanced materials for dentistry as well as transparent surgical dressings. Dr. Gaddam has more than 100 patents in widely diverse polymer applications such as dentistry, health care, display and graphics, photoinitiators, optics and nanoparticles to name only some. Many of these patents support products that improve the quality of life for consumers. He has published 89 papers in highly prestigious journals including Nature, Macromolecules, Makromolekulare Chemie, Chemical Physics and Polymer. He also contributes to the greater scientific community as a journal reviewer, and National Science Foundation panelist. Another aspect that makes Dr. Gaddam stand out is his dedication to his field and peers as a mentor and teacher, including his contributions to academics through holding two adjunct professorships.

The Industrial Scientist Award was established in 1999 to recognize outstanding industrial innovation and creativity in the application of Polymer Science, conducted by individual scientists or research teams. The award is administered by the Polymer Chemistry Division and is supported by the Industrial Advisory Board. The award is normally presented at the Industrial Sponsors program during the Fall National ACS Meeting of even numbered years. The recipient is expected to present an address at a symposium organized in his/her honor.



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