

Japan Prize for C. Grant Willson and Jean M. J. Fréchet

The Japan Prize Foundation awards the Japan Prize annually to individuals who have "achieved original and dramatic accomplishments that greatly enhance the progress of science and technology, thereby contributing to the peace and prosperity of mankind". The winners of the 2013 Japan Prize in the Materials and Production Field are C. Grant Willson and Jean M. J. Fréchet, who were honored for their work in developing chemically amplified resist polymer materials.

C. Grant Willson (The University of Texas at Austin) studied at San Diego State University and the University of California, Berkeley, where he received his PhD in 1973. After working on the faculties of California State University, Long Beach, and the University of California, San Diego, he joined the IBM Almaden Research Center, San José, where he worked for 17 years as an IBM Fellow and Manager of the Polymer Science and Technology area. He joined The University of Texas at Austin in 1993, and is currently Faculty Professor of Chemical Engineering and Rashid Engineering Regents Chair. Willson's research interests are in the design and synthesis of functional organic materials, in particular for the application in microelectronics. He reported some time ago in Angewandte Chemie on sensor microarrays,[1a] and more recently in the Journal of Polymer Science Part A on the synthesis and properties of a silicon-containing block copolymer.[1b]

Jean M. J. Fréchet (University of California, Berkeley, and King Abdullah University of Science and Technology (KAUST)) studied at the Institut de Chimie et Physique Industrielles, Lyon, the State University of New York, and Syracuse University, and received his PhD in 1971. He joined the faculty at the University of Ottawa in 1973 (including a sabbatical period in 1979 at IBM in San José), and moved to Cornell University in 1987. He joined the University of California, Berkeley, in 1997, and was made Vice-President for Research at KAUST in 2010. Themes of Fréchet's research program include organic, polymer, materials, and medicinal chemistry. He has reported in Angewandte Chemie on asymmetric cascade reactions, [2a] and in the European Journal of Inorganic Chemistry on biocompatible dendrimers for magnetic resonance imaging.[2b]

NAS Award for Initiatives in Research for Theodore Betley

The US National Academy of Sciences (NAS) has named Theodore Betley (Harvard University) as

the winner of its 2013 Award for Initiatives in Research, which is presented to young scientists (usually no older than 35 years of age). Betley was recognized for his research on iron catalysts for C-H functionalization. Betley studied at the University of Michigan, Ann Arbor, and received his PhD in 2005 from the California Institute of Technology for work supervised by Jonas C. Peters. After postdoctoral work with Harry B. Gray at the Massachusetts Institute of Technology, he started his independent career at Harvard University in 2007. Betley and his research group are interested in organometallic and polynuclear coordination chemistry. He has reported in Angewandte Chemie on the synthesis and properties of triiron complexes.[3]

NAS Award in Chemical Sciences for Gabor A. Somorjai

Gabor A. Somorjai (University of California, Berkeley) is the recipient of the 2013 NAS Award in Chemical Sciences. This award is supported by the Merck Company Foundation and is presented for work that "contributes to a better understanding of the natural sciences and to the benefit of humanity". Somorjai, who was honored for his contributions to understanding surface chemistry and catalysis, was featured here when he won the Frontiers of Knowledge Award and the New Frontiers of Hydrocarbons Prize. [4a,b] Somorjai's research is focused on surface science and characterization, and he has discussed techniques for studying reaction conditions at high pressures in a Minireview in Angewandte Chemie.[4c] Somorjai is on the Honorary Board of ChemCatChem.

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Awarded ...



C. G. Willson



J. M. J. Fréchet



T. Betley



G. A. Somorjai