

## US National Medal of Science

The National Medal of Science is awarded annually by the United States Government for contributions to science and engineering. We congratulate all the most recent recipients and feature our more regular authors here.

**Allen J. Bard** (The University of Texas at Austin) studied at The City College of New York and completed his PhD (supervised by James J. Lignane) at Harvard University in 1958. He subsequently joined the faculty of The University of Texas at Austin, where he was made the Hackerman–Welch Regents Chair in Chemistry in 1985. Bard's research interests are in the applications of electrochemistry, in particular electroorganic chemistry, photoelectrochemistry, electrogenerated chemiluminescence, and electroanalytical chemistry. He has reported in *Angewandte Chemie* on the electrodeposition of silicon.<sup>[1]</sup>

**John B. Goodenough** (The University of Texas at Austin) was featured in this section when he was elected to the National Academy of Sciences.<sup>[2a]</sup> He has recently reported in *Angewandte Chemie* on cathode materials for sodium-ion batteries.<sup>[2b]</sup>

**M. Frederick Hawthorne** (University of Missouri) received his PhD in 1952 for work supervised by Donald J. Cram at the University of California, Los Angeles. From 1953–1954, he was a postdoctoral researcher with George S. Hammond at Iowa State University, and in 1954, he joined Rohm and Haas in Huntsville, and then in Philadelphia. He was made professor at the University of California, Riverside, in 1962, and moved to the Los Angeles campus (UCLA) in 1969. In 2006, he moved to the University of Missouri, where he is Director of the International Institute of Nano and Molecular Medicine, Professor of Chemistry, Physics, Radiology, and Nuclear Science, and University of Missouri Curators' Professor. Hawthorne's research is centered on the frontiers between chemistry and medicine, involving previously unexplored borane chemistry combined with nanotechnology and the biosciences. He has reported in *Angewandte Chemie* on the functionalization of icosahedral borane clusomers with click reactions.<sup>[3]</sup>

## US National Medal of Technology and Innovation

The National Medal of Technology and Innovation is presented by the US Government to individuals, teams, or companies who have "made lasting contributions to America's competitiveness and quality of life and helped strengthen the Nation's technological workforce". We feature two of the eleven most recent recipients here.

**Frances H. Arnold** (California Institute of Technology) is interested in the application of

evolutionary design methods to biological systems. She has reported in *Advanced Synthesis & Catalysis* on the P450-catalyzed oxidation of methane,<sup>[4a]</sup> and was highlighted here when she received the Charles Stark Draper Prize.<sup>[4b]</sup> Arnold is on the Editorial Advisory Board of *ChemBioChem* and the International Advisory Board of *ChemCatChem*.

**Robert S. Langer** (Massachusetts Institute of Technology) was featured in this section when he won the Priestley Medal and the Perkin Medal.<sup>[5a]</sup> Langer's research interests involve biomaterials, and chemical and biomedical engineering, and he has reported in *Advanced Materials* on controlling the spatial organization of multiple cell types.<sup>[5b]</sup> He is on the International Advisory Board of *Angewandte Chemie*. Langer has also been announced as the recipient of the 2013 Wolf Prize in Chemistry.

## Alexander von Humboldt Professorship for Markus Walter Ribbe

The Alexander von Humboldt Foundation awards a series of professorships each year to world-class foreign researchers to allow them to conduct high-level research at German universities. These awards are worth 5 million Euros and are funded by the Federal Ministry of Education and Research. Among the 2013 awardees, Markus Walter Ribbe (University of California, Irvine), will carry out research at the University of Braunschweig. Ribbe studied at the University of Bayreuth, where he received his PhD in 1998 for work supervised by Ortwin Meyer. In 1998, he joined the University of California, Irvine, as a postdoctoral researcher with Barbara K. Burgess. He joined the faculty there in 2004, and was made professor in 2011. Ribbe's research is focused on mechanistic studies of the biosynthesis and catalysis of nitrogenase. He has reported in *Angewandte Chemie* on the spectroscopic characterization of the iron–molybdenum cofactor,<sup>[6a]</sup> and on nitrogenase cofactors as catalysts in CO reduction.<sup>[6b]</sup>

## ICS Prize of Excellence for Aharon Gedanken and Ilan Marek

The Israel Chemical Society (ICS) has awarded its 2012 Prize of Excellence to Aharon Gedanken (Bar-Ilan University) and Ilan Marek (Technion–Israel Institute of Technology).

Aharon Gedanken was honored for his work in the areas of spectroscopy and the fabrication of nanomaterials. Gedanken studied at Bar-Ilan University and carried out his PhD under the guidance of Joshua Jortner at Tel Aviv University. After postdoctoral work with Otto Schnepp at the University of California, Los Angeles, he returned to Bar-Ilan University in 1977, and was made professor in 1989. Themes of Gedanken's research

## Awarded ...



A. J. Bard



J. B. Goodenough



M. F. Hawthorne



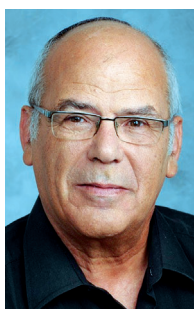
F. H. Arnold



R. S. Langer



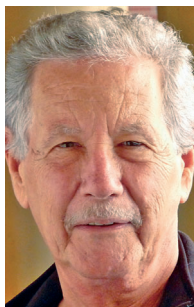
M. W. Ribbe



A. Gedanken



I. Marek



R. D. Levine



A. Ajayaghosh

include the development of new methods for nanomaterial fabrication, the formation of nanomaterials, and the conversion of biomass to fuels. He has reported in *Chemistry—A European Journal* on the antimicrobial finishing of textiles with crystalline nanoparticles.<sup>[7]</sup>

Ilan Marek was recognized for his achievements in the development of new methods for organic synthesis. Marek was featured here when he won the RSC Organometallic Award and the Janssen Pharmaceutical Prize.<sup>[8a,b]</sup> He is on the Editorial Board of the *Israel Journal of Chemistry*, the International Advisory Boards of the *European Journal of Organic Chemistry* and *The Chemical Record*, and the Academic Advisory Board of *Advanced Synthesis & Catalysis*.

### ICS Gold Medal for Raphael D. Levine

The ICS Gold Medal is the highest honor given by the ICS, and previous awardees include the Nobel Laureates Ada Yonath and Dan Shechtman. The 2012 medal has been awarded to Raphael D. Levine (The Hebrew University of Jerusalem), who was honored for his contributions to understanding chemical reactivity on the molecular scale. Levine studied at The Hebrew University and received his PhD (supervised by George Hall) from Nottingham University in 1964. After postdoctoral work with Charles Coulson at the University of Oxford, he joined the faculty at The Hebrew University in 1968. Among his other honors, he was the recipient of the Israel Prize in 1974 and the Wolf Prize for Chemistry in 1988. Levine's research interests are in chemical reaction dynamics under extreme conditions, as well as the design of molecular logic circuits and the use of chemical physics to study the system biology of cancer. He has reported in *ChemPhysChem* on reconfigurable logic devices,<sup>[9a]</sup> and in *Chemistry—A European Journal* on electrochemically driven molecular machines.<sup>[9b]</sup>

### Infosys Prize for Ayyappanpillai Ajayaghosh

The Infosys Prize is awarded annually in order to raise the prestige of Indian research and to recognize the achievements of researchers in a range of fields. Among the 2012 prize winners, Ayyappanpillai Ajayaghosh (National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram) was awarded the prize for physical sciences in recognition of his work in supramolecular chemistry, in particular in the area of organogels. Ajayaghosh studied at Calicut University,

where he received his PhD in 1988 for work supervised by V. N. R. Pillai. He subsequently joined the Indian Council of Scientific & Industrial Research (CSIR), and was an Alexander von Humboldt Fellow with Martin Demuth at the Max Planck Institute for Radiation Chemistry (now Max Planck Institute for Chemical Energy Conversion) in Mülheim an der Ruhr. Ajayaghosh's research interests are in molecular self-assembly, organogels, molecular probes, and fluorescent materials. His recent contributions to *Angewandte Chemie* include a Minireview on self-assembled gelators,<sup>[10a]</sup> and a Communication on the photonic inversion of supramolecular handedness.<sup>[10b]</sup> Ajayaghosh is on the International Advisory Board of *Chemistry—An Asian Journal*.

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