

New Members of the National Academy of Engineering

The US National Academy of Engineering recently elected 69 new members and 11 foreign associates, and we feature three of them here.

Donna G. Blackmond (The Scripps Research Institute, La Jolla) studied at the University of Pittsburgh and received her PhD from Carnegie Mellon University in 1984. She then joined the faculty at the University of Pittsburgh, and moved to Merck & Company, Inc. in 1992. She was made Professor of Technical Chemistry at the University of Essen in 1995, and group leader at the Max Planck Institute for Coal Research, Mülheim an der Ruhr, in 1996. She moved to the University of Hull in 1999, and subsequently to Imperial College London in 2004. She joined The Scripps Research Institute in 2010. Blackmond's research interests include the kinetic and mechanistic studies of catalytic reactions and fundamental investigations into the origin of biological homochirality. Her contributions to *Angewandte Chemie* include an Essay on the merits of reactions in flasks and microflow reactors,^[1a] and a Communication on transient intermediates in asymmetric autocatalysis.^[1b] Blackmond is on the Academic Advisory Board of *Advanced Synthesis and Catalysis*.

Richard H. Friend (University of Cambridge) studied at the University of Cambridge, where he carried out his PhD in the group of A. D. Yoffe. From 1977–1978, he was a postdoctoral researcher with Denis Jérôme at the Université Paris-Sud and he has spent the remainder of his career at the University of Cambridge, where he is currently Cavendish Professor of Physics. Friend's research is currently directed towards the use of organic semiconductors in photovoltaic diodes. He has reported in *Advanced Functional Materials* on materials for use in hybrid solar cells,^[2a] and light-emitting diodes.^[2b]

Henrik Topsøe (Haldor Topsøe A/S, Lyngby) completed his PhD in 1972 at Stanford University. After postdoctoral work at the same institution, he joined Haldor Topsøe A/S in 1974, and established the Fundamental Catalysis Group and the Catalysis Research Department. He is currently Executive Vice President and Chief Scientific Officer at Haldor Topsøe A/S, and adjunct professor at the Technical University of Denmark. Topsøe's research is centered on the design and production of industrial catalysts. He has reported in *Angewandte Chemie* on the use of electron microscopy to image nanocatalysts.^[3]

wandte Chemie on the use of electron microscopy to image nanocatalysts.^[3]

Roy W. Tess Award in Coatings for Benny D. Freeman

The American Chemical Society Division of Polymeric Materials Science and Engineering presents the Roy W. Tess Award in Coatings annually for work in coatings science, technology, and engineering. Benny D. Freeman (The University of Texas at Austin) is the winner of the 2013 award. Freeman studied at North Carolina State University, and was awarded his PhD (supervised by Morton M. Denn and David S. Soane) by the University of California, Berkeley, in 1988. After postdoctoral work with Lucien Monnerie and Liliane Bokobza at the École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris, he started his independent career at North Carolina State University in 1989. He joined The University of Texas at Austin in 2002, and is currently Richard B. Curran Centennial Chair of Engineering. Freeman's research interests involve polymer science and engineering, in particular in mass transport of small molecules in solid polymers for gas and liquid separations using polymer membranes. He has reported in *Angewandte Chemie* on polymers for desalination,^[4a] and in *Macromolecular Materials and Engineering* on fouling-resistant coatings.^[4b]

Featured ...



D. G. Blackmond



R. H. Friend



H. Topsøe



B. D. Freeman

- [1] a) F. E. Valera, M. Quaranta, A. Moran, J. Blacker, A. Armstrong, J. T. Cabral, D. G. Blackmond, *Angew. Chem.* **2010**, 122, 2530; *Angew. Chem. Int. Ed.* **2010**, 49, 2478; b) T. Gehring, M. Quaranta, B. Odell, D. G. Blackmond, J. M. Brown, *Angew. Chem.* **2012**, 124, 9677; *Angew. Chem. Int. Ed.* **2012**, 51, 9539.
- [2] a) Y. Vaynzof, T. J. K. Brenner, D. Kabra, H. Sirringhaus, R. H. Friend, *Adv. Func. Mater.* **2012**, 22, 2418; b) L. P. Lu, D. Kabra, R. H. Friend, *Adv. Func. Mater.* **2012**, 22, 4165.
- [3] a) C. Kisielowski, Q. M. Ramasse, L. P. Hansen, M. Brorson, A. Carlsson, A. M. Molenbroek, H. Topsøe, S. Helveg, *Angew. Chem.* **2010**, 122, 2768; *Angew. Chem. Int. Ed.* **2010**, 49, 2708; b) L. P. Hansen, Q. M. Ramasse, C. Kisielowski, M. Brorson, E. Johnson, H. Topsøe, S. Helveg, *Angew. Chem.* **2011**, 123, 10335; *Angew. Chem. Int. Ed.* **2011**, 50, 10153.
- [4] a) H. B. Park, B. D. Freeman, Z.-B. Zhang, M. Sankir, J. E. McGrath, *Angew. Chem.* **2008**, 120, 6108; *Angew. Chem. Int. Ed.* **2008**, 47, 6019; b) K. Kratz, W. Xie, A. Lee, B. D. Freeman, T. Emrick, *Macromol. Mater. Eng.* **2011**, 296, 1142.

DOI: 10.1002/anie.201302036