

National Medal of Science 2011

Seven scientists were recently named as recipients of the National Medal of Science, which is one of the highest honors given by the US government to scientists, engineers, and innovators. We congratulate all the awardees, and feature chemists Jacqueline K. Barton (California Institute of Technology (Caltech), USA) and Peter Stang (University of Utah, USA).

Jacqueline K. Barton studied at Barnard College, Columbia University and received her PhD from Columbia University in 1978, supervised by S. J. Lippard. After postdoctoral research with R. G. Shulman at Bell Laboratories and Yale University, she was appointed assistant professor at Hunter College, University of New York in 1980. She returned to Columbia University in 1983 and was promoted to professor there in 1986. She joined the faculty at Caltech in 1989 and began a term as chair of the division of chemistry and chemical engineering in 2009. Barton's research interests are in the use of transition-metal complexes to study recognition and reactions of double-helical DNA, and in electron transfer mediated by DNA.^[1]

Peter J. Stang studied at DePaul University, Chicago, Illinois and earned his PhD at the University of California, Berkeley in 1966 under A. Streitwieser. He carried out postdoctoral research with P. von R. Schleyer at Princeton University. In 1969, Stang joined the University of Utah, where he is currently Distinguished Professor of Chemistry. Stang's other recent honors include the F. A. Cotton Medal (2010) and the Fred Basolo Medal (2009), and he has been Editor of the *Journal of the American Chemical Society* since 2002. Stang's research interests are in the area of self-assembly and supramolecular chemistry, in particular the use of metal-ligand dative interactions and directional bonding to self-assemble by rational design unique metallacyclic polygons, polyhedra, and related cages with well-defined shapes and sizes. He recently reported arene-ruthenium rectangles for anion sensing in *Chemistry—A European Journal*.^[2]

Fluorine Chemistry Publication Prize for Dieter Lentz

The Fluorine Chemistry Group of the German Chemical Society (Gesellschaft Deutscher Chemiker; GDCh) has awarded its 2011 Publication Prize to Dieter Lentz (Freie Universität Berlin, Germany) for work on titanium-catalyzed C–F activation of fluoroalkanes that was reported in his recent Communication in *Angewandte Chemie*.^[3a] Lentz studied at Heidelberg University, where he

was awarded his PhD in 1979 (supervised by K. Seppelt). He completed his Habilitation in 1986 at the Freie Universität Berlin, and was appointed appl. professor there in 2005. Themes of Lentz's research include organometallic chemistry with fluorinated compounds and homogeneous catalysis. He is also interested in hydrogen-storage materials and recently published a Review on this subject in *Chemistry—A European Journal*.^[3b]

Werner Prize for Reto Dorta

The Werner Prize, which is presented by the Swiss Chemical Society to a young scientist for outstanding independent chemical research, was awarded in 2011 to Reto Dorta for his "outstanding achievements in catalyst design using novel ligand-coordination modes to activate transition metals". The prize was shared with X. Hu (EPFL).^[4a] Dorta studied at the Université de Neuchâtel and subsequently moved to the Weizmann Institute of Science, where he earned his doctoral degree under David Milstein in 2002. After postdoctoral work at the University of New Orleans with S. P. Nolan and at Caltech with J. E. Bercaw, he was awarded an Alfred Werner Assistant Professorship and moved to the Organic Chemistry Institute at the University of Zürich in 2005. He very recently accepted a position as associate professor at the University of Western Australia. Dorta's research is centered around well-defined ligand systems in the synthesis of transition-metal complexes for homogeneous catalysis, including chiral chelating ligand systems based on sulfoxides, and chiral N-heterocyclic carbenes (NHCs). He recently reported the stereoselective coordination of corannulene derivatives in *Angewandte Chemie*^[4b] and the NHC-catalyzed synthesis of tetra-ortho-substituted biaryls in *Chemistry—A European Journal*.^[4c]

- [1] B. Elias, J. C. Genereux, J. K. Barton, *Angew. Chem.* **2008**, 120, 9207; *Angew. Chem. Int. Ed.* **2008**, 47, 9067.
- [2] V. Vajpayee, Y. H. Song, M. H. Lee, H. Kim, M. Wang, P. J. Stang, K.-W. Chi, *Chem. Eur. J.* **2011**, 17, 7837.
- [3] a) M. F. Kühnel, D. Lentz, *Angew. Chem.* **2010**, 122, 2995; *Angew. Chem. Int. Ed.* **2010**, 49, 2933; b) T. Hügler, M. Hartl, D. Lentz, *Chem. Eur. J.* **2011**, 17, 10184.
- [4] a) *Angew. Chem.* **2011**, 123, 11231; *Angew. Chem. Int. Ed.* **2011**, 50, 11039; b) D. Bandera, K. K. Baldridge, A. Linden, R. Dorta, J. S. Siegel, *Angew. Chem.* **2011**, 123, 895; *Angew. Chem. Int. Ed.* **2011**, 50, 865; c) L. Wu, E. Drinkel, F. Gaggia, S. Capolicchio, A. Linden, L. Falivene, L. Cavallo, R. Dorta, *Chem. Eur. J.* **2011**, 17, 12886.

DOI: 10.1002/anie.201107662

Awarded ...



J. K. Barton



P. J. Stang



D. Lentz



R. Dorta