



Awarded...

Schrödinger Medal for S. Shaik

The World Association of Theoretical and Computational Chemists has presented Sason Shaik (Hebrew University of Jerusalem) the 2007 Schrödinger Medal for his outstanding contributions



S. Shaik

to the description of the chemical bond, reaction mechanisms in organic chemistry, and enzymatic reactivity. Shaik received his BSc and MSc at the Bar Ilan University (Israel) and his PhD with N. D. Epiotis at the University of Washington (Seattle, USA) on Spin Inversion in Triplet Reactions. In 1979 he joined the Ben Gurion University as a lecturer and was promoted to Associate Professor in 1984 and Professor in 1988. He joined the Hebrew University in 1992. He has also been Director of the Lise Meitner Minerva Center for Computational Quantum Chemistry since 1997. He is member of the editorial boards of the *Journal of Computational Chemistry* and the *Journal of Physical Organic Chemistry*, among others.

Shaik's aim is to use quantum chemistry to establish new approaches in chemistry, to explain known phenomena, and to predict experimental results. Targets of his research range from small molecules to enzymes. Recently, he reported in *Chemistry – A European Journal* about a case of spin-selective reactivity, the formation of the active species of cytochrome P450 with iodosylbenzene,^[1a] and in *ChemBioChem* about the role that the polarity of the

active center plays in enzymatic ethanol oxidation.^[1b] He also presented a highly regarded essay in *Angewandte Chemie* with the title “Chemistry—A Central Pillar of Human Culture”.^[1c]

Friedrich Wilhelm Bessel Prize for P. Arnold

Each year, the Alexander von Humboldt Foundation gives 20 promising researchers the opportunity of a research stay in Germany for at least six months with the Friedrich Wilhelm Bessel Prize, worth €45 000. Among the prizewinners this year is Polly L. Arnold (University of Edinburgh, UK). She will be working at the RWTH Aachen (Germany) in the group of J. Okuda. Arnold studied chemistry at the University of Oxford and gained her DPhil under the supervision of G. Cloke at the University of Sussex. After a postdoctoral stay in C. C. Cummins' group at the Massachusetts Institute of Technology (Cambridge, USA), she took up a lectureship at the University of Nottingham (UK) in 1999 and then moved to the University of Edinburgh in 2006. Her research deals mainly with novel structures and bonding of lanthanide and actinide complexes. This includes the synthesis of ligands that stabilize complexes in unusual oxidation states, and investigation of the activation of CO, CO₂, N₂, O₂, H₂, and hydrocarbons. In *Chemistry – A European Journal*, she recently reported the synthesis and reactivity of uranium(IV) complexes with N-heterocyclic carbene ligands.^[2]



P. Arnold

Cottrell and Beckman Awards for A. Deiters

Alexander Deiters (North Carolina State University (NCSSU), Raleigh, USA) has received one of ten 2007 Cottrell Scholar Awards (each worth USD 100 000) from the Research Corporation. This private foundation was established by F. G. Cottrell in 1912 and awards young researchers who have

made an impact in teaching. Furthermore, Deiters has also received a Beckman Young Investigator Award worth USD 300 000 from the Arnold and Mabel Beckman Foundation (Beckman Instruments).

Deiters studied at the University of Münster (Germany), where he completed his doctorate on cyclizations with enantiomer-enriched allyllithium compounds in D. Hoppe's group in 2000. Thereafter, he worked with S. F. Martin at the University of Texas at Austin (USA) on the total synthesis of indole alkaloids. In 2002 he moved to the Scripps Research Institute in La Jolla (USA), where he carried out research with P. G. Schultz on the in vivo incorporation of non-natural amino acids into proteins. In 2004 he was appointed Assistant Professor at the NCSU. His interests range from combinatorial to biological chemistry and can be divided into four central topics:



A. Deiters

1) photochemical modulation of gene expression, 2) total synthesis of natural products, 3) combinatorial chemistry, and 4) biological screening for changes that small molecules can make to gene function. He recently reported in *Angewandte Chemie* about a general approach to chemo- and regioselective cyclotrimerization reactions^[3a] and about photochemical activation of protein expression in bacterial cells.^[3b]

- [1] a) K.-B. Cho, Y. Moreau, D. Kumar, D. A. Rock, J. P. Jones, S. Shaik, *Chem. Eur. J.* **2007**, *13*, 4103; b) Y. Wang, C. Yang, H. Wang, K. Han, S. Shaik, *ChemBioChem* **2007**, *8*, 277; c) S. Shaik, *Angew. Chem.* **2003**, *115*, 3326; *Angew. Chem. Int. Ed.* **2003**, *42*, 3208.
- [2] P. L. Arnold, A. J. Blake, C. Wilson, *Chem. Eur. J.* **2005**, *11*, 6095.
- [3] a) D. D. Young, A. Deiters, *Angew. Chem.* **2007**, *119*, 5279; *Angew. Chem. Int. Ed.* **2007**, *46*, 5187; b) D. D. Young, A. Deiters, *Angew. Chem.* **2007**, *119*, 4368; *Angew. Chem. Int. Ed.* **2007**, *46*, 4290.

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