S. Hecht

*The author presented on this page has recently published his **10th article** since 2000 in Angewandte Chemie*: "Reversible and Quantitative Denaturation of Amphiphilic Oligo(azobenzene) Foldamers": Z. Yu, S. Hecht, *Angew. Chem.* **2011**, *123*, 1678–1681; *Angew. Chem. Int. Ed.* **2011**, *50*, 1640–1643.

Stefan Hecht

Date of birth:	January 6, 1974
Position:	Professor of Organic Chemistry at the Humboldt-Universität zu Berlin (Germany)
E-mail:	sh@chemie.hu-berlin.de
Homepage:	www.hechtlab.de
Education:	1992–1997 Studies of Chemistry (Diplom) at the Humboldt-Universität zu Berlin 1996 Diploma thesis in Organic Photochemistry with Prof. William G. Dauben at the University of California, Berkeley (USA) 1997–2001 PhD in Polymer Chemistry with Prof. Jean M. J. Fréchet at the University of California, Berkeley
Awards:	**2001–2004** Sofja Kovalevskaja Award of the Alexander von Humboldt-Foundation; **2004** Top 100 Young Innovator Award of MIT's Technology Review; **2005** ADUC Young Investigator Award of the Gesellschaft Deutscher Chemiker (GDCh); **2010** Klung-Wilhelmy-Weberbank-Prize in Chemistry
Current research interests:	My research group develops chemical approaches to address various challenges in materials science. For this purpose we are exploiting the potential of organic synthesis to custom design molecular building blocks and subsequently utilize them for the bottom-up construction of functional nanostructures. Currently, we are focusing on the implementation of photoswitching functions to control and drive function with high spatio-temporal resolution as well as the generation of covalent architectures directly on surfaces. Beyond our synthetic efforts, we are investigating structure–property relationships of the resulting materials on both the single molecule and the ensemble levels in solution, in the bulk, as well as at interfaces, typically in collaboration with other groups. We hope that our work will aid the fabrication of miniaturized devices and the creation of new responsive "smart" materials.
Hobbies:	Having fun with family and friends; listening to (almost) all kinds of music; doing sports (swimming, running, playing tennis and golf); good food and drinks

What I look for first in a publication is … a thrilling new concept.

The best stage in a scientist's career is … when they can still do chemistry in the lab with their own hands.

The biggest problem that scientists face is …—sadly enough—to focus on science.

The best advice I have ever been given is … not to get frustrated over problems but to come up with respective solutions (J. M. J. Fréchet).

A good work day begins with … breakfast with the family, reading some inspiring papers, and working on a manuscript.

My 5 top papers:

1. "Prototype of a Photoswitchable Foldamer": A. Khan, C. Kaiser, S. Hecht, *Angew. Chem.* **2006**, *118*, 1912–1915; *Angew. Chem. Int. Ed.* **2006**, *45*, 1878–1881. (For the first time we could design a foldamer that undergoes a reversible helix–coil transition upon irradiation caused by the presence of a photochromic azobenzene core.)
2. "Photoswitching of Basicity": M. V. Peters, R. S. Stoll, A. Kühn, S. Hecht, *Angew. Chem.* **2008**, *120*, 6056–6060; *Angew. Chem. Int. Ed.* **2008**, *47*, 5968–5972. (This communication marks our first paper on a photoswitchable base, which we could exploit to control a general base-catalyzed reaction.)
3. "Spatial periodicity in molecular switching": C. Dri, M. V. Peters, J. Schwarz, S. Hecht, L. Grill, *Nat. Nanotech.* **2008**, *3*, 649–653. (After our initial discovery of a long-range mechanism for the STM-tip-induced isomerization of a specific azobenzene derivative on a metal surface (see *J. Am. Chem. Soc.* **2006**, *128*, 14446–14447), we could successfully address switches in defined positions of an array in a simultaneous fashion.)
4. "Nano-architectures by covalent assembly of molecular building blocks": L. Grill, M. Dyer, L. Lafferentz, M. Persson, M. V. Peters, S. Hecht, *Nat. Nanotechnol.* **2007**, *2*, 687–691. (The concept of our on-surface polymerization process, which is based on our serendipitous discovery of the thermally induced covalent bond formation between various bromophenylporphyrins is described in this publication, which has become a landmark paper.)
5. "Conductance of a Single Conjugated Polymer as a Continuous Function of Its Length": L. Lafferentz, F. Ample, H. Yu, S. Hecht, C. Joachim, L. Grill, *Science* **2009**, *323*, 1193–1197. (Based on our on-surface polymerization process (see above) we were able to prepare lengthy well-defined poly(9,9-dimethylfluorene) and to study its ability to function as a single molecular wire.)

Note that articles 3–5 are the result of an extremely fruitful and enjoyable long-term collaboration with the group of Leonhard Grill—a true friend and great physicist!

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