





A. Eychmüller

The author presented on this page has recently published his **10th article** in Angewandte Chemie in the last 10 years:

"Bimetallic Aerogels: High-Performance Electrocatalysts for the Oxygen Reduction Reaction": W. Liu, P. Rodriguez, L. Borchardt, A. Foelske, J. Yuan, A.-K. Herrmann, D. Geiger, Z. Zheng, S. Kaskel, N. Gaponik, R. Kötz, T. J. Schmidt, A. Eychmüller, Angew. Chem. 2013, 125, 10033–10037; Angew. Chem. Int. Ed. 2013, 52, 9849–9852.

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Education: 1978–1984 Studies of Physics, University of Göttingen

1984-1986 PhD supervised by Dr. K.-H. Grellmann and Prof. A. Weller, Max Planck Institute

for Biophysical Chemistry and University of Göttingen

1987-1988 Postdoctoral research with M. A. El-Sayed, University of California, Los Angeles

Awards: 2010 Dresden Congress Award; 2013 ERC Advanced Grant

Current research Synthesis, characterization, and applications of colloidal nanoparticles (metal oxides, semiinterests: conductors, and metals); ordered and nonordered superstructures of nanoparticles

Hobbies: Music (active and passive), hiking in the mountains

My biggest motivation is ... curiosity.

The most exciting thing about my research is ... not knowing what comes next.

My greatest achievement has been ... to have brought my three boys into the world (with the help of my wife of course).

The downside of my job is ... the bureaucratic jungle.

When I'm frustrated, I ... practice scales on my 'cello.

My favorite saying is ... (after E. Tauer) "From nothing comes nothing, more helps more, and what is gone is gone".

f I won the lottery, I would ... have to have played.

The most important thing I learned from my parents is ... honesty and generosity.

My favorite place on earth is ... somewhere in the mountains.

chose chemistry as a career because ... studying physics provides a reasonable basis for this endeavour.

My best investment was ... see answer to question 3.

My most exciting discovery to date has been ... to find out about the joy of teaching.

My 5 top papers:

- "Hydrogels and Aerogels from Noble Metal Nanoparticles": N. C. Bigall, A.-K. Herrmann, M. Vogel, M. Rose, P. Simon, W. Carrillo-Cabrera, D. Dorfs, S. Kaskel, N. Gaponik, A. Eychmüller, *Angew. Chem.* 2009, 121, 9911 9915; *Angew. Chem. Int. Ed.* 2009, 48, 9731 9734. (The first reported (aero-)gels from metal nanoparticles.)
- "3D Assembly of Semiconductor and Metal Nanocrystals: Hybrid CdTe/Au Structures with Controlled Content": V. Lesnyak, A. Wolf, A. Dubavik, L. Borchardt, S. V. Voitekhovich, N. Gaponik, S. Kaskel, A. Eychmüller, *J. Am. Chem. Soc.* 2011, 133, 13413–13420. (Gelation of various nanoparticles by a cation-mediated bridging of tetrazole ligands.)
- "Colloidal Nanocrystals Embedded in Macrocrystals: Robustness, Photostability and Color Purity": T. Otto, M. Müller, P. Mundra, V. Lesnyak, H. V. Demir, N. Gaponik, A. Eychmüller, Nano Letters 2012, 12, 5348-

- 5354. (Potential applications resulting from the embedding of emitting semiconductor nanocrystals in salt matrices.)
- "Enzyme-Encapsulating Quantum Dot Hydrogels and Xerogels as Biosensors: Multifunctional Platforms for Both Bio-catalysis and Fluorescent Probing": J. Yuan, N. Gaponik, A. Eychmüller, Angew. Chem. 2013, 125, 1010–1013; Angew. Chem. Int. Ed. 2013, 52, 976–979. (Application of nanoparticle gels in the field of sensing, and hybridization with bioentities.)
- "3D Assembly of Semiconductor and Metal Nanocrystals: Hybrid CdTe/Au Structures with Controlled Content": V. Lesnyak, A. Wolf, A. Dubavik, L. Borchardt, S. V. Voitekhovich, N. Gaponik, S. Kaskel, A. Eychmüller, *J. Am. Chem. Soc.* 2011, 133, 13413–13420. (A general approach for reversible gelation of mixtures of nanocrystals enabled by tetrazole ligands.)

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