





J. R. Nitschke

The author presented on this page has published more than 10 articles in Angewandte Chemie in the last 10 years, most recently: "Guanidinium Binding Modulates Guest Exchange within an [M₄L₆] Capsule": S. Zarra, M. M. J. Smulders, Q. Lefebvre, J. K. Clegg, J. R. Nitschke, Angew. Chem. 2012, 124, 3541–3545; Angew. Chem. Int. Ed. 2012, 51, 6882–6885.

Jonathan R. Nitschke

Date of birth: March 17, 1973

Position: Reader, Department of Chemistry, University of Cambridge

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Education: 1995 Undergraduate degree, Williams College, Massachusetts

2001 PhD with T. Don Tilley, University of California, Berkeley

2001–2003 NSF Postdoctoral Fellow with Jean-Marie Lehn, Université Louis Pasteur,

Strasbourg

Awards: 2006 European Young Chemist Award at the first EuCheMS Congress; 2007 Werner Prize,

Swiss Chemical Society; 2011 Corday-Morgan Prize, Royal Society of Chemistry; Dalton

Transactions European/African Lectureship; 2012 Cram Lehn Pedersen Prize in

Supramolecular Chemistry

Current research Deciphering the rules that cause small chemical building blocks ("subcomponents") to selfinterests: assemble into complex and functional structures, particularly in parallel, within chemical

networks

Hobbies: Hiking, cycling, exploring cities

My favorite place on earth is ... Yosemite National Park.

The most significant scientific advance of the last 100 years has been ... the identification of the Higgs Boson.

The greatest scientific advance in the next decade will be ... successfully predicted by someone well above my pay grade.

My biggest motivation is ... the sense that we scientists might be helping to pave the way for our descendants' destiny out among the stars.

My favorite piece of research is ... Darwin's "On the Origin of Species".

n my opinion, the word "scientist" means ... curiosity-driven.

chose chemistry as a career because ... nothing else seemed as interesting and compelling.

My most exciting discovery to date has been ... the white phosphorus thing (see below).

The downside of my job is ... pretty minimal, compared to most jobs.

When I'm frustrated I ... listen to music by the band "Nine Inch Nails".

My favorite author is ... Thomas Pynchon. Vladimir Nabokov is also up there.

My favorite food is ... Chicago-style deep-dish pizza, or most Japanese food.

My favorite piece of music is ... Beethoven's 7th Symphony, 2nd movement.

My 5 top papers:

- "White Phosphorus is Air-Stable within a Self-Assembled Tetrahedral Capsule": P. Mal, B. Breiner, K. Rissanen, J. R. Nitschke, *Science* 2009, 324, 1697–1699. (We managed to tame the ancient demon of white phosphorus by encapsulating individual molecules.)
- "Transformative Binding and Release of Gold Guests from a Self-Assembled Cu₈L₄ Tube": W. Meng, J. K. Clegg, J. R. Nitschke, *Angew. Chem.* 2012, 124, 1917–1920; *Angew. Chem. Int. Ed.* 2012, 51, 1881–1884. (There might be some economic value associated with our discovery of strong and selective gold binding.)
- "Subcomponent Self-Assembly and Guest-Binding Properties of Face-Capped Fe₄L₄⁸⁺ Capsules": R. Bilbeisi, J. K. Clegg, N. Elgrishi, X. de Hatten, M. Devillard, B. Breiner, P. Mal, J. R. Nitschke, J. Am.
- Chem. Soc. 2012, 134, 5110-5119. (Together with the following paper, this work helps demonstrate the generality of our method of building molecular capsules.)
- "A Self-Assembled M₈L₆ Cubic Cage that Selectively Encapsulates Large Aromatic Guests": W. Meng, B. Breiner, K. Rissanen, J. D. Thoburn, J. K. Clegg, J. R. Nitschke, Angew. Chem. 2011, 123, 3541 – 3545; Angew. Chem. Int. Ed. 2011, 50, 3479 – 3483. (I see lots of potential in these host – guest systems.)
- "A Dynamic Covalent, Luminescent Metallopolymer that Undergoes Sol-to-Gel Transition on Temperature Rise": X. de Hatten, N. Bell, N. Yufa, G. Christmann, J. R. Nitschke, J. Am. Chem. Soc. 2011, 133, 3158– 3164. (Our first foray into polymer chemistry.)

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