

## Alan E. Rowan

<b>Date of birth:</b>	2 June, 1966
<b>Nationality:</b>	British
<b>Position:</b>	Full Professor, Molecular Materials Department, Institute for Molecules and Materials, Nijmegen (Netherlands)
<b>Education:</b>	1984–1990 BSc. 1st Class Honours in Chemistry, PhD in Physical Organic Chemistry with Professor R. J. Abraham, “N.M.R. and Computational Studies as a Probe for Structural Elucidation in Solution”, University of Liverpool (England) 1991–1993 Postdoctoral Research Fellowship with Dr C. A. Hunter and Prof. D. A. Buckingham, University of Otago (New Zealand)
<b>Awards:</b>	Jonge Chemie Award: “Nanosized Porphyrin Architectures” 2001 Vidi Research Award: “Catalytic Rotaxanes. Mimicking Nature’s Processive Catalysts” 2004 SPP/JPP Young Investigator Award 2005 Vici Research Award: “Catalysis: Coupling Motion and Activity”
<b>Current research interests:</b>	Functional systems for application in catalysis (organic and inorganic), OFETs (organic field effect transistors) and OLEDs (organic LEDs), liquid crystals, optoelectronic, conductive, and magnetic materials and their combination with biomolecules; design and synthesis of novel (bio)polymers, self-organizing molecules, and ordered crystals and investigation of their properties; the relationship between molecular structure and architecture at the nanometer level and the material properties.
<b>Hobbies:</b>	Flying, golf, and playing with my children



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The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*: “A Polymeric Molecular Handle for Multiple AFM-Based Single-Molecule Force Measurements”: F. Valle, G. Zuccheri, A. Bergia, L. Ayres, A. E. Rowan, R. J. M. Nolte, B. Samori, *Angew. Chem.* **2008**, 120, 2431–2434; *Angew. Chem. Int. Ed.* **2008**, 47, 2465–2468.

**I chose chemistry as a career because...** I like the creative challenge.

**My favorite subjects at school were...** mathematics and music.

**The biggest problem that scientists face is...** to find a balance between work and family life.

**My favourite piece of research is...** there are many, but those from George Whitesides always inspire me.

**If I could have dinner with three famous scientists from history, they would be...** Emil Fischer, Archimedes, and Linus Pauling.

**The three things I would take to a desert island would be...** golf clubs, a sony e-book, and a mobile phone.

**My most exciting discovery to date has been...** processive catalysts.

**If I wasn't a scientist, I would be...** a chef.

**The most exciting thing about my research is...** working with dynamic, young scientists.

### My five top papers:

1. “Mechanism of Threading a Polymer Through a Macrocyclic Ring”: A. B. C. Deutman, C. Monnereau, J. A. A. W. Elemans, G. Ercolani, R. J. M. Nolte, A. E. Rowan, *Science* **2008**, 322, 1668–1671.
2. “Positional Assembly of Enzymes in Polymersome Nanoreactors for Cascade Reactions”: D. M. Vriezema, P. M. L. Garcia, N. Sancho Oltra, N. S. Natzakis, S. M. Kuiper, R. J. M. Nolte, A. E. Rowan, J. C. M. van Hest, *Angew. Chem.* **2007**, 119, 7522–7526; *Angew. Chem. Int. Ed.* **2007**, 46, 7378–7382.
3. “Macroscopic Hierarchical Surface Patterning of Porphyrin Trimers via Self-Assembly and Dewetting”: R. van Hameren, P. Schoen, A. M. van Buul, J. Hoogboom, S. V. Lazarenko, J. W. Gerritsen, H. Engelkamp, P. C. M. Christianen, H. A. Heus, J. C. Maan, T. Rasing, S. Speller, A. E. Rowan, J. A. A. W. Elemans, R. J. M. Nolte, *Science* **2006**, 314, 1433–1436.
4. “Epoxidation of Polybutadiene by a Topologically Linked Catalyst”: P. Thordarson, E. J. A. Bijsterveld, A. E. Rowan, R. J. M. Nolte, *Nature* **2003**, 424, 915–918.
5. “Single-Enzyme Kinetics of CALB-Catalyzed Hydrolysis”: K. Velonia, O. Flomenbom, D. Loos, S. Masuo, M. Cotlet, Y. Engelborghs, J. Hofkens, A. E. Rowan, J. Klafter, R. J. M. Nolte, F. C. de Schryver, *Angew. Chem.* **2005**, 117, 566–570; *Angew. Chem. Int. Ed.* **2005**, 44, 560–564—featured on the cover (see above right).



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