



C. Barner-Kowollik

Christopher Barner-Kowollik

Date of birth:	January 25, 1973
Position:	Professor of Macromolecular Chemistry at the Karlsruhe Institute of Technology (KIT) and the Queensland University of Technology (QUT)
E-mail:	christopher.barner-kowollik@kit.edu
Homepage:	www.macroarc.de
Education:	1997 MSc, University of Konstanz and University of Göttingen 1999 Doctorate supervised by Prof. M. Buback, University of Göttingen 2000–2002 Postdoctoral work with Prof. T. Davis, University of New South Wales
Awards:	2004 Rennie Medal (Royal Australian Chemical Institute); 2005 Edgeworth David Medal (Royal Society of New South Wales); 2012 International Biannual Belgian Polymer Group Award
Current research interests:	Precision macromolecular synthesis and surface design; light-induced chemistry; micro- and nanostructured hybrid materials; mechanisms and kinetics; mass spectrometry
Hobbies:	History, archery, travel

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

“Macromolecular Surface Design: Photopatterning of Functional Stable Nitrile Oxides”: O. Altintas, M. Glassner, C. Rodriguez-Emmenegger, A. Welle, V. Trouillet, C. Barner-Kowollik, *Angew. Chem. Int. Ed.* **2015**, 54, 5777; *Angew. Chem.* **2015**, 127, 5869.

My favorite author (fiction) is Roald Dahl and his short stories.

If I were not a scientist, I would be a historian.

I can never resist Double Coat Tim Tams (any Australian will explain what that is).

My top three films of all time are *The Big Lebowski*, *The Shining*, *Alien* (my daughter is called Ellen).

In retrospect I would never again open the valve on the fluorine bottle without checking if it's properly connected to the excimer laser inlet.

My favorite song is *Lookin' Out My Back Door* (Creedence Clearwater Revival).

My favorite quote is “Never tell me the odds” (Han Solo to C-3PO in *The Empire Strikes Back*).

The biggest problem that scientists face is the amazingly poor scientific understanding of vast parts of the population leading to bizarre phenomena like homeopathy or opposition to vaccinations.

My favorite place on earth is on the porch after a heavy summer rainfall, looking over dense, misty Australian rain forest.

The most exciting thing about my research is the endless possibilities that macromolecules offer.

Guaranteed to make me laugh is my daughter and my son with their crazy ideas ... oh, and of course Tim Minchin.

My 5 top papers:

1. “ λ -Orthogonal Pericyclic Macromolecular Photoligation”: K. Hildebrandt, T. Pauloehrl, J. P. Blinco, K. Linkert, H. G. Börner, C. Barner-Kowollik, *Angew. Chem. Int. Ed.* **2015**, 54, 2838; *Angew. Chem.* **2015**, 127, 2880. (Site-specific photochemical functionalization.)
2. “(Bio)Molecular Surface Patterning by Phototriggered Oxime Ligation”: T. Pauloehrl, G. Delaittre, M. Bruns, M. Meißler, H. G. Börner, M. Bastmeyer, C. Barner-Kowollik, *Angew. Chem. Int. Ed.* **2012**, 51, 9181; *Angew. Chem.* **2012**, 124, 9316. (Making the very mild and popular oxime ligation phototriggerable.)
3. “Adding Spatial Control to Click Chemistry: Light-Triggered Diels–Alder Surface (Bio)functionalization at Ambient Temperature”: T. Pauloehrl, G. Delaittre, V. Winkler, A. Welle, M. Bruns, H. G. Börner, A. M. Greiner, M. Bastmeyer, C. Barner-Kowollik, *Angew. Chem. Int. Ed.* **2012**, 51, 1071; *Angew. Chem.* **2012**, 124, 9316. (Precision surface patterning.)
4. “Entropy driven chain effects on ligation chemistry”: K. Pahnke, J. Brandt, G. Gryn'ova, P. Lindner, R. Schweins, F. G. Schmidt, A. Lederer, M. L. Coote, C. Barner-Kowollik, *Chem. Sci.* **2015**, 6, 1061. (The position of dynamic equilibria is strongly dependent on the length and stiffness of the macromolecular building blocks.)
5. “Controlled Cell Adhesion on Poly(dopamine) Interfaces Photopatterned with Non-Fouling Brushes”: C. Rodriguez-Emmenegger, C. M. Preuss, B. Yameen, O. Pop-Georgievski, M. Bachmann, J. O. Mueller, M. Bruns, A. S. Goldmann, M. Bastmeyer, C. Barner-Kowollik, *Adv. Mater.* **2013**, 25, 6123. (A combination of tetrazole photochemistry and living polymerization protocols.)

International Edition: DOI: 10.1002/anie.201504556

German Edition: DOI: 10.1002/ange.201504556