Helmut Cölfen

Date of birth:	July 24, 1965
Nationality:	German
Position:	Senior Scientist, Max-Planck-Institute of Colloids and Interfaces, Potsdam (Germany) Private docent, University of Potsdam
Education:	1985–1991 Chemistry, Gerhard-Mercator-University Duisburg (Germany) 1991–1993 PhD in physical chemistry with Werner Borchard, "Analytical Ultracentrifugation of Gels", Gerhard-Mercator-University, Duisburg 1993–1995 Postdoctoral position with Stephen E. Harding, "Characterization of Complex Biopolymers and Their Interactions", National Centre for Macromolecular Hydrodynamics, University of Nottingham (UK) 1995–2001 Habilitation in physical chemistry with Markus Antonietti, "Biomimetic Mineralisation Using Hydrophilic Copolymers: Synthesis of Hybrid Colloids with Complex Form and Pathways Towards their Analysis in Solution", Max-Planck-Institute of Colloids and Interfaces
Awards:	**2006** Steinhofer Lecture University of Freiburg; **2001** Travel award German Chemical Society, Macromolecular Chemistry Section; **2000** Hermann Schnell award, German Chemical Society, Macromolecular Chemistry Section; **1993** "Studienabschlußstipendium" Fonds of the German Chemical Industry; **1991** "Hochschulabsolventenpreis" University of Duisburg
Current research interests:	Physical chemistry of crystallization and nucleation; nonclassical crystallization; controlled self-organization of nanoparticles; Bio- and bioinspired mineralization; synthesis of tailor-made double hydrophilic block copolymers for crystallization control; analytical ultracentrifugation (AUC) detector and method development for complex colloids and polymers.
Hobbies:	Singer and guitarist in a rock band, songwriting, cycling, and fishing

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*The author presented on this page has recently published his **10th article** since 2000 in Angewandte Chemie*: "Calcite Crystals with Platonic Shapes and Minimal Surfaces": R. -Q. Song, A. -W. Xu, M. Antonietti, H. Cölfen, *Angew. Chem.* 2009, *121*, 401–405; *Angew. Chem. Int. Ed.* **2009**, *48*, 395–399.

The best advice I have ever been given is... to never give up if it is worth it.

My favorite subject at school was... physics.

When I was eighteen I wanted to be... a rock musician.

The biggest problem that scientists face is... to get lost in insignificant details losing the overall view of the scientific problem.

If I could have dinner with three famous scientists from history, they would be... Theodor Svedberg, Michael Faraday, and Wolfgang Ostwald.

The three things I would take to a desert island would be... the books that I have always wanted to read but have not managed to, my guitar, and a crate of beer.

My biggest inspiration is... looking at Biology.

My first experiment was... to explore the action of gravity on ceramic and other objects when I was a little boy—actually this is not too far away from my current research interests.

The biggest challenge facing scientists is... the ever increasing amount of information that needs to be digested.

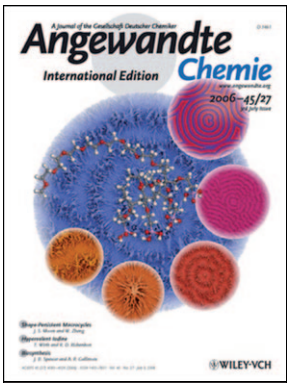
My biggest motivation is... that things in science usually do not work straight away, as expected, or as predicted. Finding the real reasons, functions, or mechanisms behind things is what drives me.

My ultimate goal is to... have enough time for my family as well as for science.

If I could be a piece of lab equipment, I would be... an Analytical Ultracentrifuge (what else)? so that I could really spin everything round and round and get things moving.

My favorite authors are... Edgar Allen Poe & J. R. R. Tolkien.

The biggest challenge facing chemists is... to find solutions for the big global problems of the human race.



H. Cölfen has featured on the cover of Angewandte Chemie: "Formation of Self-Organized Dynamic Structure Patterns of Barium Carbonate Crystals in Polymer-Controlled Crystallization": T. Wang, A. -W. Xu, H. Cölfen, *Angew. Chem.* **2006**, *118*, 4491; *Angew. Chem. Int. Ed.* **2006**, *45*, 4383.

My five top papers:

1. "Stable Prenucleation Calcium Carbonate Clusters": D. Gebauer, A. Völkel, H. Cölfen, *Science* **2008**, *322*, 1819–1822.
2. "Tectonic Arrangement of $BaCO_3$ Nanocrystals into Helices Induced by a Racemic Block Copolymer": S.-H. Yu, K. Tauer, H. Cölfen, M. Antonietti, *Nat. Mater.* **2005**, *4*, 51–55.
3. "Mesocrystals: Inorganic Superstructures Made by Highly Parallel Crystallization and Controlled Alignment": H. Cölfen, M. Antonietti, *Angew. Chem.* **2005**, *35*, 5714–5730; *Angew. Chem. Int. Ed.* **2005**, *44*, 5576–5591.
4. "Higher-Order Organization by Mesoscale Self-Assembly and Transformation of Hybrid Nanostructures": H. Cölfen, S. Mann, *Angew. Chem.* **2003**, *21*, 2452–2468; *Angew. Chem. Int. Ed.* **2003**, *42*, 2350–2365.
5. "Double-Hydrophilic Block Copolymers: Synthesis and Application as Novel Surfactants and Crystal Growth Modifiers": H. Cölfen, *Macromol. Rapid Commun.* **2001**, *22*, 219–252.

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