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Albrecht Berkessel was born in 1955 and obtained his Diplom in 1982 at the University of Saarbrücken. For his PhD studies, he moved to the laboratory of Professor Waldemar Adam at the University of Würzburg. In 1985, he obtained his PhD for mechanistic studies on the photochemistry of divinyl ethers (*summa cum laude*). In 1985, he joined the research group of Professor Ronald Breslow at Columbia University, New York as a Lynen Fellow (AvH), to work on functionalized cyclodextrins as enzyme models and on the mechanism of biotin action. In 1986, he returned to Germany to start independent research on the mechanisms of nickel enzymes from methanogenic archaea. His habilitation at the University of Frankfurt/Main (associated to Professor Gerhard Quinkert) was completed in 1990. In 1992, he became Associate Professor at the University of Heidelberg. Since 1997, he is a Full Professor of Organic Chemistry at the University of Cologne. His current research interests center around mechanistic and preparative aspects of metal-based catalysis, organocatalysis, biocatalysis, and biological/medicinal chemistry.

Albrecht Berkessel held visiting professorships at the University of Wisconsin, Madison (USA), the Research School of Chemistry of the Australian National University at Canberra (Australia), the National University of Singapore and Chuo University in Tokyo, Japan. His awards include the Young Faculty Award of the Fonds der Chemischen Industrie, and the Award in Chemistry of the Göttingen Academy of Sciences. He has published ca. 180 research papers and reviews, and he is one of the two co-authors of the Wiley-VCH bestseller "Asymmetric Organocatalysis" (2005).

Selected recent publications:

- (1) S. Das, D. Pekel, J.-M. Neudörfl, A. Berkessel: Organocatalytic Glycosylation by Using Electron-Deficient Pyridinium Salts; *Angew. Chem. Int. Ed.*, **2015**, DOI: 10.1002/anie.201503156
- (2) V. R. Yatham, J.-M. Neudörfl, N. E. Schlörer, A. Berkessel: Carbene Catalyzed Umpolung of α,β -Enals: a Reactivity Study of Diamino Dienols vs. Azolium Enolates, and the Characterization of Advanced Reaction Intermediates; *Chem. Sci.* **2015**, *6*, 3706-3711.
- (3) Q. Wang, J.-M. Neudörfl, A. Berkessel: Titanium *cis*-1,2-Diaminocyclohexane (*cis*-DACH) Salalen Catalysts for the Asymmetric Epoxidation of Terminal Non-Conjugated Olefins with Hydrogen Peroxide; *Chem. Eur. J.* **2015**, *21*, 247-254.
- (4) A. Berkessel, S. Das, D. Pekel, J.-M. Neudörfl: Anion-Binding Catalysis by Electron-Deficient Pyridinium Cations; *Angew. Chem. Int. Ed.* **2014**, *53*, 11660-11664. Highlighted in *Synfacts* **2014**, *10*, 1330.
- (5) A. Berkessel, V. R. Yatham, S. Elfert, J.-M. Neudörfl: The Key Intermediates of Carbene-Catalyzed Umpolung Characterized by X-Ray/NMR: Breslow Intermediates, Homo-enolates and Azolium Enolates; *Angew. Chem. Int. Ed.* **2013**, *52*, 11158-11162.
- (6) A. Berkessel, T. Günther, Q. Wang, J.-M. Neudörfl: Chiral Ti-Salalen Catalysts Based on *cis*-1,2-Diaminocyclohexane for the Enantioselective Epoxidation of Terminal, Non-Conjugated Olefins with H₂O₂; *Angew. Chem. Int. Ed.* **2013**, *52*, 8467-8471.
- (7) A. Berkessel, J. Krämer, F. Mummy, J.-M. Neudörfl, R. Haag: Dendritic Fluoroalcohols as Catalysts for Alkene Epoxidation with Hydrogen Peroxide; *Angew. Chem. Int. Ed.* **2013**, *52*, 739-742. Hot Paper; highlighted in *Synfacts* **2013**, *9*, 451.
- (8) A. Berkessel, S. Elfert, V. R. Yatham, J. Neudörfl, N. Schlörer, J. H. Teles: Umpolung by N-Heterocyclic Carbenes: Generation and Reactivity of the Elusive Diaminoenols (Breslow Intermediates); *Angew. Chem. Int. Ed.* **2012**, *51*, 12370-12374. Highlighted in *Chem. Eng. News* *90*, 8 (October 29, **2012**); *Nachr. Chem.* **2012**, *60*, 1171; *Synfacts* **2013**, 105; *Nachr. Chem.* **2013**, *61*, 293.
- (9) N. Duangdee, W. Harnying, G. Rulli, J.-M. Neudörfl, H. Gröger, A. Berkessel: Highly Enantioselective Organocatalytic Trifluoromethyl Carbinol Synthesis - a Caveat on Reaction Times and Product Isolation; *J. Am. Chem. Soc.* **2012**, *134*, 11196-11205.
- (10) G. Rulli, N. Duangdee, K. Baer, W. Hummel, A. Berkessel, H. Gröger: Directing Kinetically vs. Thermodynamically Controlled Organocatalysis and its Application in Chemoenzymatic Synthesis; *Angew. Chem. Int. Ed.* **2011**, *50*, 7944-7947. Highlighted in *Nature Chemistry* **2011**, *3*, 655.