Author Profile



U. T. Bornscheuer

The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "A Single Residue Influences the Reaction Mechanism of Ammonia Lyases and Mutases": S. Bartsch, U. T. Bornscheuer, Angew. Chem. 2009, 121, 3412-3415; Angew. Chem. Int. Ed. 2009, 48, 3362 - 3365.

Uwe T. Bornscheuer

Date of birth: January 14, 1964 **Nationality:** German

Position: Full Professor of Biotechnology & Enzyme Catalysis, Institute of Biochemistry, University of

Greifswald (Germany)

Education: 1985–1990 Chemistry, University of Hannover (Germany)

1990-1993 PhD in Chemistry with Profs. K. Schügerl and T. Scheper, "Reaction Engineering Investigations of the Enzymatic Kinetic Resolution of 3-Hydroxyesters in Nonconventional

Media", University of Hannover

1993-1994 Postdoc with Prof. T. Yamane, "Lipase-Catalyzed Synthesis of Monoacylglycerols",

University of Nagoya (Japan)

1994-1998 Habilitation in technical biochemistry, "New Strategies for the Application of

Lipases and Esterases in Organic Synthesis", University of Stuttgart (Germany)

1999-Present Greifswald University

1993 FCI Award and the Japanese Society for the Promotion of Science Award Awards:

2008 Biocat Award

Design and application of enzymes for stereoselective organic synthesis and for lipid Current research interests: modification; protein engineering by using rational tools and directed evolution

Hobbies: Reading, sailing, and motor biking

My favorite subject at school was...chemistry!

The most significant scientific advance of the last 100 years has been...the discovery of how DNA

When I wake up I...need a cup of coffee.

The three things I would take to a desert island would be...my family, my insulin, and my iPhone.

chose chemistry as a career because... I find it fascinating to make new compounds.

The most important future applications of my research are...green and sustainable organic synthesis.

My first experiment was...to mix all of the chemicals of my "starter kit" to see what would happen.

f I wasn't a scientist, I would be...a journalist.

My most exciting discovery to date has been...the conversion of an esterase into an epoxide hydrolase.

The part of my job which I enjoy the most is...working with enthusiastic students.

A good work day begins with...receiving only emails with good news.

My favorite author (science) is...currently J. Craig Venter, "A Life Decoded: My Genome: My Life".

My favorite band is...The Offspring.

f I could be described as an animal it would be...a busy bee.

My worst habit is...to impatiently wait for a paper to get reviewed (and hopefully accepted).

My 5 top papers:

- 1. "Kinetic Resolution of 4-hydroxy-2-ketones by a Baeyer-Villiger Monooxygenase": A. Kirschner, U. T. Bornscheuer, Angew. Chem. 2006, 118, 7161-7163; Angew. Chem. Int. Ed. 2006, 45, 7004-7006.
- 2. "Isoenzymes of Pig Liver Esterase Reveal Striking Differences in Enantioselectivities": A. Hummel, E. Brüsehaber, D. Böttcher, K. Doderer, H. Trauthwein, U. T. Bornscheuer, Angew. Chem. 2007, 119, 8644-8646; Angew. Chem. Int. Ed. 2007, 46, 8492-8494.
- 3. "Efficient Asymmetric Synthesis of Chiral Amines by Combining Transaminase and Pyruvate Decarboxy-
- lase": M. Höhne, S. Kühl, K. Robins, U. T. Bornscheuer, ChemBioChem 2008, 9, 363-365.
- 4. "Complete Inversion of Enantioselectivity Towards Acetylated Tertiary Alcohols by a Double Mutant of a Bacillus subtilis Esterase": S. Bartsch, R. Kourist, U. T. Bornscheuer, Angew. Chem. 2008, 120, 1531-1534; Angew. Chem. Int. Ed. 2008, 47, 1508-1511.
- "Converting an Esterase into an Epoxide Hydrolase": H. Jochens, K. Stiba, C. Savile, R. Fujii, J.-G. Yu, T. Gerassenkov, R. J. Kazlauskas, U. T. Bornscheuer, Angew. Chem. 2009, 121, 3584-3587.

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