



Xiaoming Feng

Date of birth: February 7, 1964

Position: Professor at the College of Chemistry, Sichuan University (China) Education: 1981–1985 Chemistry studies, Lanzhou University (China) 1985–1988 M.S. in Chemistry, Lanzhou University (China)

1993-1996 PhD in Chemistry, Institute of Chemistry, Chinese Academy of Sciences, Beijing

1998–1999 Postdoc with Professor Yian Shi, Colorado State University, Fort Collins (USA) Awards: 2002 Sichuan Science & Technology Progress Award (First Class); 2009 Award for Research

Achievements in Natural Science of the Ministry of Education (First Class); 2009 National

Design and synthesis of new chiral ligands and organocatalysts, particularly the ones derived Current research interests:

from amino acids; Metal- and nonmetal-catalyzed asymmetric synthesis and methodologies and

their application in the synthesis of bioactive molecules

Hobbies: Reading history books, music, and driving my car

My favorite subject at school was ... physics.

When I wake up I ... wish I could fall asleep again.

The biggest challenge facing scientists is ... to solve environmental problems.

My favorite piece of research is ... the development of new catalysts.

chose chemistry as a career because ... I like to arrange atoms into new molecules.

n my spare time I ... love to listen to music.

The secrets of being a successful scientist are ... great persistence and innovation.

n ten years time I will ... still be looking forward.

The best advice I have ever been given is ... to do what one is good at.

A good work day begins with ... good humor.

The biggest challenge facing chemists is ... to accomplish perfect chemical reactions with 100% selectivity and 100% yield.

My 5 top papers:

- 1. "Catalytic Asymmetric Cyanosilylation of Ketones by a Chiral Amino Acid Salt": X. H. Liu, B. Qin, B. He, X. M. Feng, J. Am. Chem. Soc. 2005, 127, 12225-12225. (A very simple catalyst, yet exciting outcomes.)
- 2. "Asymmetric Activation of tropos 2,2'-Biphenol with Cinchonine Generates an Effective Catalyst for the Asymmetric Strecker Reaction of N-Tosyl-Protected Aldimines and Ketoimines": J. Wang, X. L. Hu, J. Jiang, S. H. Gou, X. Huang, X. H. Liu, X. M. Feng, Angew. Chem. 2007, 119, 8620-8622; Angew. Chem. Int. Ed. 2007, 46, 8468-8470. (The strategies of asymmetric activation and bifunctional catalysis have been perfectly utilized in this system.)
- 3. "An N,N'-Dioxide/In(OTf)₃ Catalyst for the Asymmetric Hetero-Diels-Alder Reaction Between Danishefsky's Dienes and Aldehydes: Application in the Total Synthesis of Triketide": Z. P. Yu, X. H. Liu, Z. H. Dong, M. S. Xie, X. M. Feng, Angew. Chem. 2008, 120, 1328-1331; Angew. Chem. Int. Ed. 2007, 47, 1308-1311. (In this work we explored chiral N,N'-dioxides designed by our research group as highly efficient chiral ligands in the asymmetric Hetero-Diels-Alder

- reaction with a broad substrate scope. The results show the application prospect of this kind of chiral ligand.)
- "Catalytic Asymmetric Bromoamination of Chalcones: Highly Efficient Synthesis of Chiral α -Bromoβ-Amino Ketone Derivatives": Y. F. Cai, X. H. Liu, Y. H. Hui, J. Jiang, W. T. Wang, W. L. Chen, L. L. Lin, X.M. Feng, Angew. Chem. 2010, 122, 6296-6300; Angew. Chem. Int. Ed. 2010, 49, 6160-6164. (In this paper we describe the develoment of the first asymmetric catalytic bromoamination of chalcones. Unusual regioselectivity together with excellent results at remarkably low catalyst loadings were obtained, thus showing the great potential of N,N'-dioxide-metal complexes.)
- "Chiral Bisguanidine-Catalyzed Inverse-Electron-Demand Hetero-Diels-Alder Reaction of Chalcones with Azlactones": S. X. Dong, X. H. Liu, X. H. Chen, F. Mei, Y. L. Zhang, B. Gao, L. L. Lin, X. M. Feng, J. Am. Chem. Soc. 2010, 132, 10650-10651. (In this work we synthesized a new kind of organocatalyst and discovered an unexpected reaction. It became clear that the development of new catalysts offers significant opportunities for new synthetic methods.)

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The author presented on this page has recently published his 10th article since 2000 in Angewandte Chemie: "Catalytic Asymmetric Bromoamination of Chalcones: Highly Efficient Synthesis of Chiral α -Bromo- β -Amino Ketone Derivatives": Y. F. Cai, X. H. Liu, Y. H. Hui, J. Jiang, W. T. Wang, W. L. Chen, L. L. Lin, X. M. Feng, Angew. Chem. 2010, 122, 6296-6300; Angew. Chem. Int. Ed. 2010, 49, 6160-6164.