



生命科学与生物工程学院

The College of Life Science and Bio-engineering

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赵洪武简介



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专业：有机化学
研究方向：药物化学，不对称有机合成化学
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学术和工作简历：

1988-1992, 东北师范大学, 理学学士
1992-1995, 东北师范大学, 理学硕士
1995-1997, 大连理工大学, 讲师
1997-2000, 北京大学, 理学博士
2000-2001, 香港大学化, 博士后
2001-2004, 弗吉尼亚理工大学(USA), 博士后
2004-2006, 普度大学(USA), 博士后
2007-现在, 北京工业大学, 副研究员

主讲课程：有机合成，药物合成(双语教学)，生物材料

研究领域和兴趣：

1. 新型的具有抗HIV和抗肿瘤活性的天然产物类似物的设计和合成
2. 新型手性配体的设计和合成以及不对称催化反应的研究
3. 主客体化学：手性识别的研究

负责和参与的科研项目

1. 北京市自然科学基金面上项目?(项目负责人, 2010- 2012)
2. 人才强教深化计划中青年骨干人才(项目负责人, 2010- 2012)
3. 北京市教委面上项目(项目负责人, **2009-2011**)
4. 北京工业大学博士启动基金(项目负责人, 2007-2009)
5. 科技部973项目重大科学研究计划(参与, 2009-2013)
6. 国家科技重大专项项目(参与, 2008-2010)

代表性论文和专著：

- Hongwu Zhao***, Rugang Zhong, Hong Yan, Wei Yang, Jin Cui and Wenting Hua, Synthesis of A Series of Novel Chiral Aromatic Heterocyclic Macrocycles Containing L-Amino acid and 2,5-Bisphenyl-1,3,4-Triazole Subunits, *Synthetic Communications*, **2009**, 39(17), 3038-3044
- Hongwu Zhao***, Jin Cui, Shi Su, Xiuqing Song, Hong Yan, Rugang Zhong, Liming Hu, Synthesis and Structure of C2-Symmetrical Optically Active Macrocycles Consisting of Two Biaryl and Two Amino Acid Moieties, **2010** (in manuscript)
- Hongwu Zhao***, Jin Cui, Shi Su, Xiuqing Song, Hong Yan, Rugang Zhong, Asymmetric Synthesis of Novel Biaryl Analogs Containing Chiral 5,6-Fused Bicyclic Bridges, **2010** (in manuscript)
- Paul R. Carlier* and **Hongwu Zhao**. Enantioselective Synthesis of Diversely Substituted Quaternary 1,4-Benzodiazepin-2-ones and 1,4-Benzodiazepin-2,5-diones. *J. Am. Chem. Soc.*, **2006**, 128, 15215-15220.
- Paul R. Carlier*, Polo C.-H. Lam, Joseph C. DeGuzman and **Hongwu Zhao**. Memory of Chirality Trapping of Low Inversion Barrier 1,4-Benzodiazepin-2-one enolates, *Tetrahedron: Asymmetry*, **2005**, 16, 2998-3002.
- Hongwu Zhao**, Danny C. Hsu and Paul R. Carlier*. Memory of Chirality: An Emerging Strategy for Asymmetric Synthesis. *Synthesis* (invited review), **2005**, 1, 1-16.
- Paul R. Carlier*, **Hongwu Zhao**, Joe DeGuzman and Polo C.-H. Lam. Enantioselective Synthesis of Quaternary 1,4-Benzodiazepin-2-ones via Memory of Chirality. *J. Am. Chem. Soc.*, **2003**, 125, 11482-11483.
- Dan Yang*, Shen Gu, Yi-Long Yan, **Hongwu Zhao** and Nian-Yong Zhu. Atom-Transfer Tandem Radical Cyclization Reactions Promoted by Lewis Acids, *Angew. Chem. Int. Ed.*, **2002**, 41, 3014-3017.
- Hongwu Zhao** and Wenting Hua*. The Synthesis of Chiral Macroyclic Ligands Containing a 2, 5-Bisphenyl-1, 3, 4-Oxadiazole Unit. *Synthetic communications*, **2000**, 30, 2923.
- Hongwu Zhao** and Wenting Hua*. Synthesis and Characterization of PyridineBased Polyamido-polyester Optically Active Macrocycles and EnantiomericRecognition for D- and L- Amino acid Methyl Ester Hydrochloride. *J. Org. Chem.*, **2000**, 65, 2933-2938.
- Hongwu Zhao**, Yongge Wei and Wenting Hua*. The Synthesis, Crystal Structure and Self-Organization of Molecules Containing 2,5-Bis(o-aminophenyl)-1,3,4-Oxadiazoles Unit and *N*-Tos-L-Amino Acid Residues. *J. Mol. Struct.*, **2000**, 553, 109-115.
- Qun Liu*, **Hongwu Zhao**, Zhiyun Yang and Bailing Xu. The Chemistry of a-Oxoketene Cyclic Dithioacetals (XXV) - Studies on the Substitution Cycloaromatization Reaction of Adducts from β , β -1, 3-Propylenedithio α -, β - Unsaturated Ketones and Methallyl Grignard Reagent by Bifunctional Group Nucleophiles. *Chemical Joural of Chinese Universitie*, **1996**, 1, 73

国内外重要学术会议论文

- Paul R. Carlier* and **Hongwu Zhao**, Enantioselective synthesis of "quaternary" 1,4- benzodiazepin-2-ones: extension of a privileged scaffold, *228th ACS National Meeting*, Philadelphia, Pennsylvania, August 22-26, **2004 (Oral Presentation by Dr.**