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教育工作背景

1996-2000 浙江大学 获理学学士学位

2000-2005 中国科学院上海有机化学所 获理学博士学位

2006-2008 新加坡国立大学 博士后研究工作

2008-至今 上海大学理学院化学系, 历任讲师、副教授和教授

主要研究方向

- 不对称催化串联反应;
- 吡啶类生物碱的立体选择性合成研究;
- 精细化工品合成工艺开发

主持项目(负责人)

1. “不对称有机小分子催化反应及其应用的研究”, 国家自然科学基金资助项目, 编号: 20802043, 经费: 18 万元, 时间 2009 年 1 月—2011 年 12 月;

2. “基于不对称有机催化的串联反应的设计”, 国家自然科学基金资助项目, 编号: 21072125, 经费: 36 万元, 时间 2011 年 1 月—2013 年 12 月;

3. “有机催化构筑手性吡啶螺环结构及其在合成中的应用研究”, 国家自然科学基金资助项目, 编号: 21272150, 经费: 80 万元, 时间 2013 年 1 月—2016 年 12 月;

4. “基于带亲核位点端炔丙醇类底物的不对称催化串联环化反应”, 国家自然科学基金资助项目, 编号: 21672137, 经费: 65 万元, 时间 2017 年 1 月—2020 年 12 月;

5. “双核铜手性配合物及其在不对称催化中应用研究”, 国家自然科学基金资助项目, 编号: 21971158, 经费: 65 万元, 时间 2020 年 1 月—2023 年 12 月;

6. 其它项目: 教育部归国留学人员科研启动经费 1 项; 中科院重点实验室开放基金项目 2 项; 企业合作横向研究项目 1 项; 上海大学创新基金, 上海市教委青年教师科研专项基金等

独立工作以来发表论文 (通讯作者)

- Wang, J.; Zhang, S.; Ding, W. Z.; Wang, C. H.; Chen, J.; Cao, W. G.; **Wu, X. Y.** "Amide-phosphonium Salt Catalyzed Enantioselective Vinylogous Mannich Addition of Coumarins to Isatin Imines", *ChemCatChem* **2020**, *12*, 444 (IF 4.495)

2. Zhu, Q. Q.; Meng, B. B.; Gu, C. Z.; Xu, Y.; Chen, J.; Lei, C. H.; **Wu, X. Y.** "Diastereo- and Enantioselective Synthesis of Quaternary α -Amino Acid Precursors by Copper-Catalyzed Propargylation", *Org. Lett.* **2019**, *21*, 9985 (IF 6.364)
3. Xia, X. J.; Zhu, Q. Q.; Wang, J.; Chen, J.; Cao, W. G.; Zhu, B.; **Wu, X. Y.** "Direct Asymmetric Vinylogous Mannich Addition of 3,5-Disubstituted-4-nitroisoxazoles to Isatin-Derived Imines Catalyzed by a Bifunctional Phase-Transfer-Catalyst", *J. Org. Chem.* **2018**, *83*, 14617 (IF 4.721)
4. Chen, H.; Lu, X. H.; Xia, X. J.; Zhu, Q. Q.; Song, Y. H.; Chen, J.; Cao, W. G.; **Wu, X. Y.** "Asymmetric Catalytic [4 + 2] Cycloaddition via Cu–Allenylidene Intermediate: Stereoselective Synthesis of Tetrahydroquinolines Fused with a γ -Lactone Moiety", *Org. Lett.* **2018**, *20*, 1760 (IF 6.364)
5. Lu, X. H.; Ge, L.; Cheng, C.; Chen, J.; Cao, W. G.; **Wu, X. Y.** "Enantioselective Cascade Reaction for Synthesis of Quinolinones through Synergistic Catalysis Using Cu–Pybox and Chiral Benzotetramisole as Catalysts", *Chem. Eur. J.*, **2017**, *23*, 7689 (IF 5.731)
6. Cheng, C.; Lu, X. H.; Ge, L.; Chen, J.; Cao, W. G.; **Wu, X. Y.**; Zhao, G. "Effective asymmetric vinylogous Mannich reaction of isatin imines with α,α -dicyanoolefins in the presence of a simple chiral amide phosphonium bifunctional phase transfer catalyst", *Org. Chem. Front.*, **2017**, *4*, 101 (IF 4.693)
7. Ge, L.; Lu, X. H.; Cheng, C.; Chen, J.; Cao, W. G.; **Wu, X. Y.**; Zhao, G. "Amide-Phosphonium Salt as Bifunctional Phase Transfer Catalyst for Asymmetric 1,6-Addition of Malonate Esters to para-Quinone Methides", *J. Org. Chem.* **2016**, *81*, 9315 (IF 4.721)
8. Cheng, C.; Ge, L.; Lu, X. H.; Huang, J. P.; Huang, H. C.; Chen, J.; Cao, W. G.; **Wu, X. Y.** "Cu-Pybox catalyzed synthesis of 2,3-disubstituted imidazo[1,2-a] pyridines from 2-aminopyridines and propargyl alcohol derivatives", *Tetrahedron* **2016**, *72*, 6866 (IF 2.641)
9. Huang, G. X.; Cheng, C.; Ge, L.; Guo, B. B.; Zhao, L.; **Wu, X. Y.** "Trialkyl Methanetricarboxylate as Dialkyl Malonate Surrogate in Copper-Catalyzed Enantioselective Propargylic Substitution", *Org. Lett.* **2015**, *17*, 4894 (IF 6.364)
10. Guo, B. B.; Ge, L.; Huang, G. X.; Zhao, L.; Chen, J.; Cao, W. G.; **Wu, X. Y.** "Expedient Introduction of b-Methoxyacrylate Unit onto 3-Substituted Indoles and Application of the Resulting Indole-Dienes in Organocascade toward Indolino-Polycyclics", *Adv. Synth. Catal.* **2015**, *357*, 4013 (IF 5.663)
11. Zhao, L.; Huang, G. X.; Guo, B. B.; Xu, L. J.; Chen, J.; Cao, W. G.; Zhao, G.; **Wu, X. Y.** "Diastereo- and Enantioselective Propargylation of Benzofuranones Catalyzed by Pybox-Copper Complex", *Org. Lett.* **2014**, *16*, 5584 (IF 6.364)
12. Zhao, L.; Guo, B. B.; Huang, G. X.; Chen, J.; Cao, W. G.; **Wu, X. Y.** "Enantioselective Formation of 3-Substituted Indolinoazepines via Organocatalyzed Conjugate Addition of Indolinoazepines to Propargyl Aldehyde", *ACS, Catal.* **2014**, *4*, 4420 (IF 9.314)
13. **Wu, X. Y.**; Huang, J. B.; Guo, B. B.; Zhao, L.; Liu, Y.; Chen, J.; Cao, W. G. "Enantioselective Michael/aza-Michael/Cyclization Organocascade to Tetracyclic Spiroindolines: Concise Total Synthesis of Kopsinine and Aspidofractine", *Adv. Synth. Catal.* **2014**, *356*, 3377 (IF 5.663)
14. Huang, J. B.; Zhao, L.; Liu, Y.; Cao, W. G.; **Wu, X. Y.**; "Enantioselective Intermolecular

- Formal [3 + 3] Cycloaddition of 2,3-Disubstituted Indoles with Acrolein", *Org. Lett.* **2013**, *15*, 4338 (IF 6.364)
15. **Wu, X. Y.**, Liu, Q.; Liu, Y.; Wang, Q.; Zhang, Y.; Chen, J.; Cao, W. G.; Zhao, G.; "Amino Acid-Derived Phosphonium Salts-Catalyzed Michael Addition of 3-Substituted Oxindoles", *Adv. Synth. Catal.* **2013**, *355*, 2701 (IF 5.663)
 16. Liu, Y.; Wang, Q.; Zhang, Y.; Huang, J. B.; Nie, L. L.; Chen, J.; Cao, W. G.; **Wu, X. Y.**; "Enantioselective Synthesis of Indoloquinolizidines via Asymmetric Catalytic Hydrogenation/Lactamization of Imino Diesters", *J. Org. Chem.* **2013**, *78*, 12009 (IF 4.721)
 17. 陈杰, 刘钦, 戴小鸯, 聂凜凜, 房辉辉, 吴小余, "不对称有机催化 Michael 加成/半缩醛胺化/酰亚胺正离子环化串联反应研究进展", *有机化学* **2013**, *1*, 1 (IF 0.991)
 18. **Wu, X. Y.**; Liu, Q.; Fang, H. H.; Chen, J.; Cao, W. G.; Zhao, G. "Enantioselective Organocatalyzed Cascade Reactions to Highly Functionalized Spirotetracyclic Indolenines and Oxindoles", *Chem. Eur. J.* **2012**, *18*, 12196 (IF 5.731)
 19. **Wu, X. Y.**; Dai, X. Y.; Fang, H. H.; Nie, L. L.; Chen, J.; Cao, W. G.; Zhao, G. "One-Pot Three-Component Syntheses of Indoloquinolizidine Derivatives Using an Organocatalytic Michael Addition and Subsequent Pictet-Spengler Cyclization", *Chem. Eur. J.* **2011**, *17*, 10510 (IF 5.731)
 20. **Wu, X. Y.**; Nie, L. L.; Fang, H. H.; Chen, J.; Cao, W. G.; Zhao, G. "Organocatalyzed Cascade Reactions of Cyclic β -Enamino Esters and α,β -Unsaturated Aldehydes Leading to Indoloquinolizidines and Benzoquinolizidines", *Eur. J. Org. Chem.* **2011**, 6755 (IF 3.065)
 21. **Wu, X. Y.**; Zhang, Y.; Dai, X. Y.; Fang, H. H.; Chen, J.; Cao, W. G.; Zhao, G. "Enantioselective Cascade Sequence to Indoloquinolizidines and Its Application in the Synthesis of epi-Geissochizol", *Synthesis* **2011**, 3675 (IF 2.689)
 22. **Wu, X. Y.**; Fang, H. H.; Liu, Q.; Nie, L. L.; Chen, J.; Cao, W. G.; Zhao, G. "Diastereoselective Cascade Reactions Toward Substituted Diazaindeno[2,1-a]Phenanthrenes", *Tetrahedron* **2011**, *67*, 7251 (IF 2.641)
 23. Dai, X. Y.; **Wu, X. Y.**; Fang, H. H.; Nie, L. L.; Chen, J.; Deng, H. M.; Cao, W. G.; Zhao, G. "Enantioselective organocatalyzed cascade reactions to highly functionalized quinolizidines", *Tetrahedron* **2011**, *67*, 3034 (IF 2.641)
 24. Fang, H. H.; **Wu, X. Y.**; Nie, L.; Dai, X.; Chen, J.; Cao, W.; Zhao, G. "Diastereoselective Syntheses of Indoloquinolizidines by a Pictet-Spengler/Lactamization Cascade", *Org. Lett.* **2010**, *12*, 5366 (IF 6.364)
 25. Xu, J. C.; Wei, J. M.; Bian, L. L.; Zhang, J. P.; Chen, J.; Deng, H. M.; **Wu, X. Y.**; Zhang, H.; Cao, W. G. "First one-pot stereoselective synthesis of cis-2,3-dihydro-4-perfluoroalkyl-1H-1,5-benzodiazepines via a catalyst-free three-component reaction", *Chem. Commun.* **2011**, *47*, 3607 (IF 6.834)
 26. **Wu, X. Y.**; Dai, X. Y.; Nie, L. L.; Fang, H. H.; Chen, J.; Ren, Z. J.; Cao, W. G.; Zhao, G. "Organocatalyzed Enantioselective One-pot Three-component Access to Indoloquinolizidines by a Michael Addition-Pictet-Spengler Sequence", *Chem. Commun.* **2010**, *46*, 2733 (IF 6.834)
 27. **Wu, X. Y.**; Ma, Z. X.; Ye, Z. Q.; Qian, S.; Zhao, G. "Highly Efficient Organocatalyzed Direct Asymmetric Aldol Reactions of Hydroxyacetone and Aldehydes", *Adv. Synth. Catal.* **2009**, *351*, 158 (IF 5.663)

28. **Wu, X. Y.**; Cao, W. G.; Zhang, H.; Chen, J.; Jiang, H. Y.; Deng, H. M.; Shao, M.; Zhang, J. P.; Chen, H. Y. "Highly Stereoselective Synthesis of β,γ -Disubstituted and α,β,γ -Trisubstituted Butyrolactones", *Tetrahedron* **2008**, *64*, 10331 (IF 2.641)