

遵义医科大学崔宝东教授情况简介



崔宝东，中共党员，博士，教授，硕/博士生导师，贵州省高层次创新型人才“百”层次人选，贵州省高校优秀科技创新人才，贵州省“课程思政”示范课程教学名师，遵义市优秀科技工作者，遵义市市管专家，制药工程学科硕士点负责人，药学院教工第一党支部书记。研究方向包括：（1）光催化、生物酶催化及其相关的组合催化用于手性药物活性分子的绿色合成方法研究；（2）药物中间体的绿色制备工艺开发与转化应用研究。目前主持或完成省级和国家级教学改革项目 3 项，获国家实验教学改革大赛二等奖 1 项；主持国家自然科学基金项目 3 项、省部级项目 4 项，科研经费 300 余万元。以第一作者或通讯作者在 *Organic Letters*、*Chemical Communications*、*Advanced Synthesis & Catalysis*、*The Journal of Organic Chemistry* 等国际知名 SCI 收录期刊发表研究论文 20 余篇，获授权发明专利 5 件。教学与科研成果先后获贵州省本科教学成果奖一等奖（排名第 2）、贵州省教育厅自然科学一等奖（排名第 2）、贵州省科技进步一等奖（排名第 3）、贵州省研究生教学成果特等奖（排名第 3）、贵州省自然科学二等奖（排名第 3）、贵州省药学科学技术奖三等奖（排名第 1）。

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代表性研究论文：

1. Ting Wang, Yong You, Zhen-Hua Wang, Jian-Qiang Zhao, Yan-Ping Zhang, Jun-Qing Yin, Ming-Qiang Zhou, **Bao-Dong Cui**,* Wei-Cheng Yuan*. Copper-Catalyzed Diastereo- and Enantioselective Decarboxylative [3 + 2] Cyclization of Alkyne-Substituted Cyclic Carbamates with Azlactones: Access to γ -Butyrolactams Bearing Two Vicinal Tetrasubstituted Carbon Stereocenters. *Org. Lett.* **2023**, DOI: 10.1021/acs.orglett.3c00075.
2. Yue-You Chen, Chen-Dong Zhou, Xing-Tong Li, Ting-You Yang, Wen-Yong Han, Nan-Wei Wan, Yong-Zheng Chen,* **Bao-Dong Cui**.* Cooperative Tertiary Amine/Palladium-Catalyzed

- Sequential [4 + 3] Cyclization/[1,3]-Rearrangement for Stereoselective Synthesis of Spiro [Methylenecyclopentane-1,3'-oxindolines]. *J. Org. Chem.* **2023**, 88(1): 371-383.
3. Yan Long, Yun Wang, Yue-You Chen, Wen-Yong Han, Nan-Wei Wan, Wei-Cheng Yuan, Yong-Zheng Chen,* **Bao-Dong Cui**.* Copper-Catalyzed [5 + 1] Cyclization of o-Pyrrolo Anilines and Heterocyclic N-Tosylhydrazones for Access to Spirodihydropyrrolo[1,2-*a*]quinoxaline Derivatives. *J. Org. Chem.* **2022**, 87(6): 4112-4123.
 4. Chao Zhang, You-Cai Wu, **Bao-Dong Cui**,* Lian Li, Wen-Yong Han, Nan-Wei Wan, Yong-Zheng Chen,* Palladium-Catalyzed Asymmetric Allylic Alkylation of 3-Aminooxindoles to Access Chiral Homoallylic Aminooxindoles. *Org. Biomol. Chem.* **2021**, 19(21): 4720-4725.
 5. You-Cai Wu, **Bao-Dong Cui**,* Yan Long, Wen-Yong Han, Nan-Wei Wan, Wei-Cheng Yuan, Yong-Zheng Chen,* Chiral Phosphoric Acid Catalyzed (4+1) Annulation of 3-Diazooxindoles/4-Diazoisoquinolines with *para*-Quinone Methides to Access Chiral Spiro[dihydrobenzofuran-2,3'-oxindoles/2,4'-oxisoquinolines]. *Adv. Synth. Catal.* **2021**, 363(6), 1702-1713.
 6. Yu Chen, **Bao-Dong Cui***, Yi Wang, Wen-Yong Han, Nan-Wei Wan, Mei Bai, Wei-Cheng Yuan, Yong-Zheng Chen*, Asymmetric [3 + 2] Cycloaddition Reaction of Isatin-Derived MBH Carbonates with 3-Methyleneoxindoles: Enantioselective Synthesis of 3,3'-Cyclopentenyl-dispirooxindoles Incorporating Two Adjacent Quaternary Spirostereocenters. *J. Org. Chem.* **2018**, 83(17): 10465-10475.
 7. **Baodong Cui**, Yu Chen, Jing Shan, Lei Qin, Changlun Yuan, Yi Wang, Wenyong Han, Nanwei Wan and Yongzheng Chen*. Enantioselective Synthesis of Spiro-oxindole-based 3,4-Dihydropyrroles via a Michael/Cyclization Cascade of 3-Aminooxindoles with 2-Enolpyridines. *Org. Biomol. Chem.* **2017**, 15(40): 8518-8522.
 8. **Baodong Cui**, Jing Shan, Changlun Yuan, Wenyong Han, Nanwei Wan, Yongzheng Chen*. Synthesis of 2,3'-spirobi[indolin]-2-ones enabled by a tandem nucleophilic benzylation/C(sp²)-N cross-coupling reaction sequence. *Org. Biomol. Chem.* **2017**, 15(28): 5887-5892.
 9. Tinglei Zhang, **Baodong Cui***, Wenyong Han, Nanwei Wan, Mei Bai, Yongzheng Chen*. Sequential Nucleophilic C(sp³)-Benzylation/C(sp²)-H Arylation for the Synthesis of Spiro[oxindole-3,5'-pyrrolo[2,1-*a*]isoquinolines]. *Eur. J. Org. Chem.* **2017**, 2017(22): 3179-3186.
 10. Jing Shan, **Baodong Cui***, Yu Wang, Chengli Yang, Xiaojian Zhou, Wenyong Han, Yongzheng Chen*. Organocatalytic Asymmetric Mannich Reaction of 3-Hydroxyoxindoles/3-Aminooxindoles with in Situ Generated N-Boc-Protected Aldimines for the Synthesis of Vicinal Oxindole-Diamines/Amino Alcohols. *J. Org. Chem.* **2016**, 81(13): 5270-5277.

11. Yong You, **Bao-Dong Cui (并列第一作者)**, Ming-Qiang Zhou, Jian Zuo, Jian-Qiang Zhao, Xiao-Ying Xu, Xiao-Mei Zhang, Wei-Cheng Yuan*. Organocatalytic Asymmetric Michael/Friedel-Crafts Cascade Reaction of 3-Pyrrolyl-oxindoles and α,β -Unsaturated Aldehydes for the Construction of Chiral Spiro[5,6-dihydropyrido[1,2-*a*]pyrrole-3,3'-oxindoles]. *J. Org. Chem.* **2015**, 80, 5951-5957.
12. **Bao-Dong Cui**, Yong You, Jian-Qiang Zhao, Jian Zuo, Zhi-Jun Wu, Xiao-Ying Xu, Xiao-Mei Zhang, Wei-Cheng Yuan*. 3-Pyrrolyl-oxindoles as efficient nucleophiles for organocatalytic asymmetric synthesis of structurally diverse 3,3'-disubstituted oxindole derivatives. *Chem. Commun.* **2015**, 51, 757-760.
13. **Bao-Dong Cui**, Jian Zuo, Jian-Qiang Zhao, Ming-Qiang Zhou, Zhi-Jun Wu, Xiao-Mei Zhang, Wei-Cheng Yuan*. Tandem Michael Addition-Ring Transformation Reactions of 3-Hydroxyoxindoles/3-Aminooxindoles with Olefinic Azlactones: Direct Access to Structurally Diverse Spirocyclic Oxindoles. *J. Org. Chem.* **2014**, 79, 5305-5314.
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主持科研项目:

1. 贵州省高层次创新型人才百层次人员, 黔科合平台人才-GCC[2022]032-1, 2022/07-2025/07, 120 万元。
2. 国家自然科学基金项目, 22261056, 基于 2-羟甲基烯丙酯新反应性的组合催化反应设计与合成应用, 2023/01-2026/12, 33 万元。
3. 国家自然科学基金项目, 21907114, P450 酶催化卡宾对 N-H/O-H 键的插入串联反应的设计、催化机制与合成应用, 2020/01-2022/12, 24 万元。
4. 国家自然科学基金项目, 名称: Pd 催化“一锅”法不对称合成手性螺环四氢吡啶类化合物的研究, 编号: 21662049, 年限: 2017.01—2020.12, 41 万元。
5. 贵州省科学技术基金重点项目, 名称: 手性螺环四氢吡啶类化合物的组合催化合成与应用研究, 编号: 黔科合基础[2016]1421, 年限: 2016.10—2020.10, 30 万元。
6. 教育部春晖计划项目, 名称: 手性螺[二氢咪喃-氧化吡啶]类衍生物的不对称合成与应用研究, 编号: Z2016005, 年限: 2017.01—2019.12, 3 万元。
7. 贵州省社会发展公关项目, 名称: G56、沙格列汀等化学创新药及仿制药研究与开发, 编号: 黔科合 SY[2015]3030, 年限: 2015.01—2018.06, 30 万元。
8. 遵义医科大学青年优秀人才, 17zy-005 号, 2017/10-2022/10, 75 万元。