



个人简介

教授，博士生导师。2005 年本科毕业于四川大学，2011 年获华东理工大学生物化工博士学位，2015 年在英国曼彻斯特大学生物技术研究所工作。现工作于华东理工大学生物工程学院生物反应器工程国家重点实验室。担任 Bioresources and Bioprocessing、《中国医药工业杂志》杂志编委，“上海市手性药物工业不对称催化工程技术研究中心”技术委员会委员，上海市生物工程学会青年工作委员会委员。获 2018 年度上海市技术发明一等奖。

主持 2 项国家自然科学基金面上项目和 1 项青年基金项目、“973”项目子课题和“863”计划子课题各 1 项、横向及其他项目共计 13 项，总经费 750 万元；(2) 已在 SCI 期刊上发表论文 45 篇，其中在 ACS Catal. (IF 12.2, 3 篇), Curr. Opin. Biotechnol. (IF 8.5), ChemSusChem (IF 7.8), Chem. Commun., Org. Lett., Adv. Synth. Catal. (3 篇), ChemCatChem (2 篇) 等期刊上发表一作和通讯作者论文 30 篇；其中 3 篇论文 IF >12.0；(3) 申请中国发明专利 20 项，美国专利 1 项，其中授权 11 项，实现成果协议转让 3 项；(4) 受邀在国内外会议做邀请报告 2 次，口头报告 10 余次。

研究方向

- (1) 新酶催化机制与构效关系解析
- (2) 多酶分子机器的构建与调控
- (3) 酶促反应过程的强化与放大

研究成果及主要发表文章

- [1] Xu-Min Gong, Zhen Qin, Fu-Long Li, Bu-Bing Zeng, Gao-Wei Zheng*, Jian-He Xu*. Development of an Engineered Ketoreductase with Simultaneously Improved Thermostability and Activity for Making a Bulky Atorvastatin Precursor. ACS Catal., 2019, 9, 147–153. (IF: 12.2)
- [2] Fei-Fei Chen,†Gao-Wei Zheng,†Lei Liu, Hao Li, Qi Chen, Fu-Long Li, Chun-Xiu Li, and Jian-He Xu*. Reshaping the Active Pocket of Amine Dehydrogenases for Asymmetric Synthesis of Bulky Aliphatic Amines. ACS Catal. 2018, 8, 2622–2628. (IF: 12.2)
- [3] Gao-Wei Zheng*,#, Yan-Yan Liu#, Qi Chen#, Lei Huang, Hui-Lei Yu, Wen-Yong Lou, Chun-Xiu Li, Yun-Peng Bai, Ai-Tao Li, Jian-He Xu*. Preparation of Structurally Diverse Chiral Alcohols by Engineering Ketoreductase CgKR1. ACS Catal. 2017, 7, 7174–7181. (IF: 12.2)
- [4] Gao-Wei Zheng and Jian-He Xu*. New Opportunities for Biocatalysis: Driving the Synthesis of Chiral Chemicals. Curr. Opin. Biotechnol. 2011, 22, 784–792. (IF: 8.38)
- [5] Hao-Yu Jia, Min-Hua Zong, Gao-Wei Zheng*, Ning Li*. One-pot Enzyme Cascade for Controlled Synthesis of Furan Carboxylic Acids from 5-Hydroxymethylfurfural via H₂O₂ Internal Recycling. ChemSusChem, 2019, doi.org/10.1002/cssc.201902199. (IF: 7.82)
- [6] Hao Li, Ping Tian, Jian-He Xu*, Gao-Wei Zheng*. Identification of an Imine Reductase for Asymmetric Reduction of Bulky Dihydroisoquinolines. Org. Lett. 2017, 19(12): 3151–3154. (IF: 6.50)
- [7] Hieu-Huy Nguyen-Tran, Gao-Wei Zheng*, Xu-Hong Qian and Jian-He Xu*. Highly selective and controllable synthesis of arylhydroxylamines by the reduction of nitroarenes with an electron-withdrawing group using a new nitroreductase BaNTR1. Chem Commun 2014, 50, 2861–2864. (IF: 6.20)
- [8] Jin-Gang Yin, Yi Gong, Xiao-Yan Zhang, Gao-Wei Zheng*, and Jian-He Xu*. Green access to chiral Vince lactam in a buffer-free aqueous system using a newly identified substrate-tolerant (–)- γ -lactamase. Catal. Sci. Technol. 2016, 6, 6305–6310. (IF: 5.73)
- [9] Hao Li, Zheng-Jiao Luan, Gao-Wei Zheng*, and Jian-He Xu*. Efficient Synthesis of Chiral Indolines using an Imine Reductase from Paenibacillus lactis. Adv. Synth. Catal. 2015, 357, 1692–1696. (IF: 5.50)
- [10] Yu-Jun Zhang, Wen-Xia Zhang, Gao-Wei Zheng*, and Jian-He Xu*. Identification of an ϵ -Ketoester Reductase for Efficient Synthesis of (R)- α -Lipoic Acid Precursor. Adv. Synth. Catal. 2015, 357, 1697–1702. (IF: 5.50)