



所属学院 生物工程学院

学科领域 生物化工

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个人简介

2001 年，日本国立山口大学物质工程专业工学博士，1997 年浙江大学化学工程专业工学硕士，1984 年南京理工大学化学工程专业工学学士。2001–2006 年美国加州大学戴维斯分校博士后研究员，2006 至今华东理工大学生物工程学院教授、博士生导师。学博士，教授、博士生导师。上海市浦江人才计划学者。现任 Applied Biochemistry and Biotechnology 和 Bioprocess and Biosystems Engineering 期刊副主编、ACS Sustainable Chemistry and Engineering 编委、Springer 和 Elsevier 学术期刊客座编辑。

研究方向

研究领域聚焦于生物能源和生物炼制方向。提出了木质纤维素干法生物炼制技术，在液体燃料和生物基化学品生产上显示了巨大的技术优势和环境友好性，奠定了以木质纤维素替代粮食和石油资源的可持续生物与化学工业的技术基础；面向生物能源和生物聚合物生产的超级生物炼制微生物的发现、进化和代谢工程改造，成倍提高了生物转化效率，达到了迄今国内外最高水平的生物炼制转化、能耗和排放指标；独特的生物脱毒菌株和代谢机制的发现，极大提高了生物炼制过程效率和环境质量，实现了抑制物脱毒

研究成果及主要发表文章

1. Zhao Yan1, Xiaochuang Gao1, Qiuqiang Gao, Jie Bao*. Identification, tolerance mechanism and metabolic modification of biorefinery fermentation strains to lignin derived inhibitor p-benzoquinone. Applied and Environmental Microbiology 2019, 85:e01443-19.
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7. Gang Liu, Jie Bao*. Constructing super large scale cellulosic ethanol plant by decentralizing dry acid pretreatment technology into biomass collection depots. Bioresource Technology 2019, 275:338-344.
8. Gang Liu1, Qiang Zhang1, Hongxing Li, Abdul Sattar Qureshi, Jian Zhang, Xiaoming Bao*, Jie Bao*. Dry biorefining maximizes the potentials of simultaneous saccharification and co-fermentation for cellulosic ethanol production. Biotechnology and Bioengineering 2018, 115, 60-69.
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10. Weiliang Hou, Maofen Zhang, Jie Bao*. Cascade hydrolysis and fermentation of corn stover for production of high titer gluconic and xylonic acids. Bioresource Technology 2018, 264:395-399.
11. Weiliang Hou, Jie Bao*. Simultaneous saccharification and aerobic fermentation of high titer cellulosic citric acid by filamentous fungus *Aspergillus niger*. Bioresource Technology 2018, 253, 72-78.
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13. Hanqi Gu, Ruixin An, Jie Bao*. Pretreatment refining leads to constant particle size distribution of lignocellulose biomass in enzymatic hydrolysis. Chemical Engineering Journal 2018, 352:198-205.
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15. Jian Zhang*, Cheng Lei, Gang Liu, Yanwen Bao, Venkatesh Balan*, Jie Bao*. In-situ vacuum distillation of ethanol helps to recycle cellulase and yeast during SSF of delignified corncob residues. ACS Sustainable Chemistry & Engineering 2017, 5, 11676-11685.
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20. Gang Liu, Jie Bao*. Maximizing cellulosic ethanol potentials by minimizing wastewater generation and energy consumption: Competing with corn ethanol. Bioresource Technology 2017, 245: 18-26.
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24. Hongsen Zhang1, Xushen Han1, Chengxiang Wei1, Jie Bao*. Oxidative production of xylonic acid using xylose in distillation stillage of cellulosic ethanol fermentation broth by *Gluconobacteroxydans*. Bioresource Technology 2017, 224:573-580.
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