

请输入关键字

提交 English

首页

学院概况

组织机构

人才培养

科学研究

合作交流

师资队伍

学生工作

校友扬帆

联系我们



## 包木太教授、博导

发布者: 刘桐 发布时间: 2020-06-16 浏览次数: 15094

包木太



职称：教授、博导, 教育部“新世纪优秀人才支持计划”获得者

学术兼职：中国海监溢油检验鉴定执法业务运行系统专家委员会委员；国家海洋局海洋溢油鉴别与损害评估技术重点实验室客座研究员；《环境科学与技术》、《应用基础与工程科学学报》编委；青岛市蓝色经济区建设青年研究会会员；青岛市化学化工学会第六届理事会理事。

电话 (传真) : 0532-66782509

Email: mtbao@ouc.edu.cn

### 教育与研究经历

1990-1994, 山东聊城师范学院化学系化学教育专业, 获学士学位

1995-1998, 中国科学院福建物质结构研究所物理化学专业, 获硕士学位

1998-2001, 青岛海洋大学化学化工学院海洋化学专业, 获博士学位

2001-2003, 中国石化胜利油田有限公司博士后科研工作站采油工艺研究院分站博士后

2001-2003, 中国海洋大学环境科学与工程博士后流动站博士后

2003- 今, 中国海洋大学化学化工学院副教授、教授、博士生导师

2012- 今, 海洋化学理论与工程技术教育部重点实验室教授、博士生导师

### 研究领域与兴趣

环境微生物生物物理化学过程研究

主要包括：海洋溢油生物修复、微生物驱油机理、含油含聚污水生化处理

### 代表性成果 (论文、专利、奖励)

1) Lanmei Zhao, **Mutai Bao\***, Miao Yan, Jinren Lu. Kinetics and thermodynamics of biodegradation of hydrolyzed polyacrylamide under anaerobic and aerobic conditions [J]. Bioresource Technology, **2016**, 216, 95–104 doi:10.1016/j.biortech.2016.05.054 SCI—IF=4.494

- 2) Xiaolong Yang, Fangfang Qian, Guojun Zou, Mengli Li, Jinren Lu, Yiming Li, **Mutai Bao\***. Facile Fabrication of Acidified g-C<sub>3</sub>N<sub>4</sub> Nanosheets/g-C<sub>3</sub>N<sub>4</sub> Hybrids with Enhanced Photocatalysis Performance under Visible Light Irradiation [J]. *Applied Catalysis B: Environmental*, **2016**, 193, 22-35 doi:10.1016/j.apcatb.2016.03.060 SCI—IF=7.435
- 3) Miao Yan, Lanmei Zhao, **Mutai Bao\***, Jinren Lu. Hydrolyzed polyacrylamide biodegradation and mechanism in sequencing batch biofilm reactor [J]. *Bioresource Technology*, **2016**, 207, 315-321. DOI: <http://dx.doi.org/10.1016/j.biortech.2016.01.083> SCI—IF=4.494
- 4) Haiyue Gong, **Mutai Bao**, Guilu Pi, Yiming Li,\* Aiqin Wang, and Zhining Wang. Dodecanol-modified petroleum hydrocarbon degrading bacteria for oil spill remediation: double effect on dispersion and degradation [J]. *ACS Sustainable Chem. Eng. ACS Sustainable Chemistry & Engineering* **2016**, 4, 169–176. DOI: 10.1021/acssuschemeng.5b00935 SCI—IF=4.642
- 5) Yongrui Pi, Long Meng, **Mutai Bao\***, Peiyan Sun, Jinren Lu. Degradation of crude oil and relationship with bacteria and enzymatic activities in laboratory testing [J]. *International Biodeterioration & Biodegradation*, **2016**, 106, 106-116 <http://dx.doi.org/10.1016/j.ibiod.2015.10.015> SCI—IF=2.131
- 6) Shudong Li, Yongrui Pi, **Mutai Bao\***, Cong Zhang, Dongwei Zhao, Yiming Li, Peiyan Sun, Jinren Lu. Effect of rhamnolipid biosurfactant on solubilization of polycyclic aromatic hydrocarbons [J]. *Marine Pollution Bulletin*, **2015**, 101(1), 219-225. 10.1016/j.marpolbul. 2015.09.059 SCI—IF=2.991
- 7) Guilu Pi, Lili Mao, **Mutai Bao**, Yiming Li\*, Haiyue Gong and Jianrui Zhan, Preparation of Oil-in-Seawater Emulsions Based on Environmentally Benign Nanoparticles and Biosurfactant for Oil Spill Remediation, *ACS Sustainable Chem. Eng. ACS Sustainable Chemistry & Engineering* **2015**, 3, 2686–2693. DOI:10.1021/acssuschemeng.5b00516 SCI—IF=4.642
- 8) Tiantian Shen, Yongrui Pi, **Mutai Bao\***, Nana Xu, Yiming Li, and Jinren Lu. Biodegradation of different petroleum hydrocarbons by free and immobilized microbial consortia [J]. *Environmental Science: Process & Impact*, **2015**, 17, 2022 – 2033. DOI: 10.1039/c5em00318k SCI—IF=2.171
- 9) Xiaohong Zhuang, Yongrui Pi, **Mutai Bao\***, Xiujin Zheng. The physical-biological processes of petroleum hydrocarbons in seawater/sediments after oil spill [J]. *RSC Advance*, **2015**, 5, 98990 - 98998. DOI: 10.1039/c5ra20850e SCI—IF=3.84
- 10) Yongrui Pi, **Mutai Bao\***, Yiming Li, Guangmei Li, Jinren Lu, Peiyan Sun. Characterization of crude oil degrading microbial cultures isolated in Qingdao China [J]. *RSC Advances*, **2015**, 5, 97665-97674. DOI: 10.1039/c5ra16628d SCI—IF=3.84

- 11)Guoliang Sang, Yongrui Pi, **Mutai Bao\***, Yiming Li, Jinren Lu. Biodegradation for hydrolyzed polyacrylamide in the anaerobic baffled reactor combined aeration tank [J]. *Ecological Engineering*, **2015**, 84, 121-127. doi:10.1016/j.ecoleng.2015.07.028 SCI二区 IF=2.580
- 12)Peiyan Sun, **Mutai Bao\***, Fujuan Li, Lixin Cao, Xinping Wang, Qing Zhou, Guangmei Li, Hongxia Tang. Sensitivity and identification indexes for fuel oils and crude oils based on the hydrocarbon components and diagnostic ratios using principal component analysis (PCA) biplots [J]. *Energy & Fuels*, **2015**, 29, 3032-3040. DOI: 10.1021/acs.energyfuels.5b00443 SCI二区 IF=2.790
- 13)Haiyue Gong, Yiming Li\*, **Mutai Bao**, Dong Lv, Zhining Wang. Petroleum hydrocarbon degrading bacteria associated with chitosan as effective particle-stabilizers for oil emulsification [J]. *RSC Adv.*, **2015**, 5, 37640-37647. DOI: 10.1039/c5ra01360g. SCI四区IF=3.840
- 14)Yongrui Pi, Nana Xu, **Mutai Bao\***, Yiming Li, Dong Lv, Peiyan Sun. Bioremediation of the oil spill polluted marine intertidal zone and its toxicity effect on microalgae [J]. *Environmental Science: Processes & Impacts*, **2015**, 17, 877-885. DOI: 10.1039/C5EM00005J SCI三区IF=2.171
- 15)Yongrui Pi, Zhonghuan Zheng, **Mutai Bao\***, Yiming Li, Yingying Zhou, Guoliang Sang. Treatment of Partially Hydrolyzed Polyacrylamide Wastewater by Combined Fenton Oxidation and Anaerobic Biological Processes [J]. *Chemical Engineering Journal*, **2015**, 273, 1-6. DOI:10.1016/j.cej.2015.01.034 SCI二区IF=4.321
- 16)Xinping Wang, Yuhui Zhao, Peiyan Sun, Min Ji, **Mutai Bao\***. Automatic Integration Method for Single and Multi-peaks of GC and GC-MS Chromatogram of Oil Characteristic Compounds [J]. *Analytical Methods*, **2015**, 7, 2670-2679. DOI: 10.1039/C4AY03088E SCI三区IF=1.821
- 17)L.J. Tong, **M.T. Bao**, Y.M. Li\*, H.Y. Gong, L.S. Wang. Interfacial dynamic and dilational rheology of catanionic two-component nanoparticle systems at air-water interface [J]. *Applied surface Science*, **2014**, 316: 147-154. <http://dx.doi.org/10.1016/j.apsusc.2014.07.186> SCI四区 IF=2.538
- 18)Yiming Li\*, Haixia Zhang, Zhining Wang, **Mutai Bao**. Micelle-vesicle transitions in catanionic mixtures of SDS/DTAB induced by salt, temperature, and selective solvents: a dissipative particle dynamics simulation study [J]. *Colloid and Polymer Science*, **2014**, 292: 2349-2360. DOI 10.1007/s00396-014-3258-0 SCI四区IF=2.41
- 19)**Mutai Bao\***, Peiyan Sun\*, Xiaofei Yang, Xinping Wang, Lina Wang, Lixin Cao, Fujuan Li. Biodegradation of marine surface floating crude oil in a large-scale field simulated experiment [J]. *Environmental Science: Processes & Impacts, Environ. Sci.: Processes Impacts*, **2014**, 16(8), 1948-1956. DOI: 10.1039/C4EM00166D, Paper SCI三区 IF=2.109
- 20)**Mutai Bao\***, Yongrui Pi, Lina Wang, Peiyan Sun, Yiming Li, Lixin Cao. Lipopeptide biosurfactant production bacteria *Acinetobacter* sp. D3-2

and its biodegradation of crude oil [J]. *Environmental Science: Processes & Impacts*, **2014**, 16(4):897-903. DOI:10.1039/C3EM00600J SCI三区 IF=2.109

21) **M. Bao**, T. Liu, Z. Chen, L. Guo, G. Jiang, Y. Li, and X. Li. A Laboratory Study for Assessing Microbial Enhanced Oil Recovery. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, **2013**, 35:22, 2141-2148. DOI: 10.1080/15567036.2010.492380 SCI四区 IF=0.358

22) **Mutai Bao\***, Qingguo Chen, Yuanjiao Gong, Yiming Li, Haifeng Wang, Guancheng Jiang. Removal efficiency of heavy oil by free and immobilized microorganisms on laboratory-scale. *CANADIAN JOURNAL OF CHEMICAL ENGINEERING*, **2013**, 91(1), 1-8. DOI 10.1002/cjce.20688 SCI四区 IF=1.313

23) Nana Xu, **Mutai Bao\***, Peiyan Sun, Yiming Li. Study on bioadsorption and biodegradation of petroleum hydrocarbons by a microbial consortium [J]. *Bioresource Technology*, **2013**, 149, 22-30. <http://dx.doi.org/10.1016/j.biortech.2013.09.024> SCI一区 IF=5.039

24) Yiming Li\*, Yingyan Guo, Guiying Xu, Zhining Wang, **Mutai Bao**, Nuannuan Sun, Dissipative Particle Dynamics Simulation on the Properties of the Oil/Water/Surfactant System in the Absence and Presence of Polymer, *Molecular Simulation*, **2013**, 39(4): 299-308 39:4, 299-308, DOI: 10.1080/08927022.2012.724173 SCI四区 IF=1.119

25) Qingguo Chen, **Mutai Bao\***, Xiaoning Fan, Shengkang Liang, Peiyan Sun. Rhamnolipids enhance marine oil spill bioremediation in laboratory system. *Marine Pollution Bulletin*, **2013**, 71(1-2), 269-275. SCI三区 IF=2.793

26) **Mu-tai Bao\***, Li-na Wang, Pei-yan Sun, Li-xin Cao, Jie Zou, Yi-ming Li. Biodegradation of crude oil using an efficient microbial consortium in a simulated marine environment [J]. *Marine Pollution Bulletin*, **2012**, 64(6):1177-1185. <http://dx.doi.org/10.1016/j.marpolbul.2012.03.020> SCI三区 IF=2.531

27) Yiming Li\*, Haixia Zhang, **Mutai Bao**, Qingguo Chen. Aggregation behavior of Surfactants with Different Molecular Structures in Aqueous Solution: DPD Simulation Study, *Journal of Dispersion Science and Technology*, **2012**, 33: 1437-1443. <http://dx.doi.org/10.1080/01932691.2011.620897> SCI四区 IF=0.705

28) Yiming Li\*, Haixia Zhang, **Mutai Bao**, Zhining Wang, Dissipative particle dynamics simulation on the association between polymer and surfactant: Effects of surfactant and polymer feature, *Computational Materials Science*, **2012**, 63, 154-162. <http://dx.doi.org/10.1016/j.commatsci.2012.06.007> SCI三区 IF=1.879

- 29)Yiming Li\*, Yingyan Guo, **Mutai Bao**, Xueli Gao. Investigation of Interfacial and Structural Properties of CTAB at the Oil/Water Interface Using Dissipative Particle Dynamics Simulations, *Journal of Colloid and Interface Science*, **2011**,361(2),573-580.doi:10.1016/j.jcis.2011.05.078  
SCI三区IF=3.552
- 30)Yiming Li\*, **Mutai Bao**, Zhining Wang, Haixia Zhang, Guiying Xu. Aggregation behavior and complex structure between triblock copolymer and anionic surfactants, *Journal of Molecular Structure*, **2011**, 985, 391-396. doi:10.1016/j.molstruc.2010.11.028 SCI四区IF=1.599
- 31)孙暖暖, 李一鸣\*, 王东翔, **包木太**, 童林娟. Pluronic 三嵌段共聚物在油水界面上自组装行为的介观模拟研究[J]. *化学学报*, **2013**, 71, 186-192, SCI四区 IF=0.874
- 32)**Mutai Bao**\*, Qingguo Chen, Yiming Li, Guancheng Jiang. Biodegradation of partially hydrolyzed polyacrylamide by bacteria isolated from production water after polymer flooding in an oil field. *Journal of Hazardous Material*, **2010**, 184:105-110. SCI一区 IF=4.331
- 33)Guancheng Jiang\*, **Mutai Bao**, Chaofeng Ji, Xianping Ma, Yihua Yao. Study and Application on the Oil-film Method Used for Reservoir Protection Drilling and Completion Fluid Systems. *Journal of Dispersion Science and Technology*. **2010**, 31(9):1273-1277. SCI四区IF=0.705
- 34)**Mutai Bao**\*, Xiangping Kong, Guancheng Jiang, Xiulin Wang, Ximing Li. Laboratory Study on Activating Indigenous Microorganisms to Enhance Oil Recovery in Shengli Oil Field [J]. *Journal of Petroleum Science & Engineering*, **2009**, 66: 42-46.SCI四区 IF=0.707
- 35) Peiyan Sun\*, **Mutai Bao**, Guangmei Li, Xinping Wang, Yuhui Zhao, QingZhou, Lixin Cao. Fingerprinting and source identification of an oil spill in ChinaBohaiSea by gas chromatography-flame ionization detection and gas chromatography–mass spectrometry coupled with multi-statistical analyses [J]. *Journal of Chromatography A*, **2009**, 1216 (5): 830-836.SCI二区IF=3.756
- 36) **Bao Mu-Tai**\*, Sun Pei-Yan, Cui Wen-Lin, Gao Zheng-Hui. Crude Oil Identification Using Multistatistical Analysis Based on Characteristic Ratios. *Chinese Journal of Analytical Chemistry*, **2008**, 36(4):483-488. SCI
- 37)于良民, 闫雪峰, **包木太**, 李昌诚, 姜晓辉, 闫菊, 董磊. 含辣素和磺酸基的疏水缔合聚合物及其制备方法, 国家发明专利, 专利号: ZL200810158315.3.
- 38)陆金仁, 梁生康, **包木太**, 单宝田, 田婷. 一种处理油田废水的方法及其专用设备, 国家发明专利, 申请号: 201310178134.8.
- 39)**包木太**, 孙培艳, 李一鸣, 郑秀谨, 王腾. 一种测定海洋悬浮溢油中石油烃浓度垂直分布的装置, 国家发明专利, 专利号: ZL201310364103.1.
- 40)**包木太**, 王腾, 李一鸣, 陆金仁, 郑秀谨. 一种模拟海洋滩涂溢油的实验装置, 国家发明专利, 专利号: ZL201310694119.9

41) **包木太**, 李一鸣, 孙培艳, 周青, 王丽娜. 海洋溢油微生物修复生物物理化学过程研究. 2013年山东高等学校优秀科研成果奖 (自然科学类) 一等奖.

42) **包木太**. 2011年度教育部新世纪优秀人才支持计划(NCET-11-0464)

43) **包木太**, 陈庆国, 李一鸣. Biodegradation of partially hydrolyzed polyacrylamide by bacteria isolated from production water after polymer flooding in an oil field, Journal of Hazardous Materials. 青岛市第十届自然科学优秀学术论文三等奖.

44) 崔文林, 孙培艳, **包木太**, 马挺, 王维华, 杨晓飞, 李继业, 李国强, 曲应洲, 王丽娜. 海洋溢油污染的微生物修复技术应用研究. 2011年海洋创新成果奖 (海洋科学技术研究) 二等奖.

地址: 青岛市崂山区松岭路238号 · 邮编: 266100 · 电话: 0532-66782481 Email: hxhgxz@ouc.edu.cn

Copyright © 2004-2014 Ocean University of China. All rights reserved.