卢耀斌

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一、基本信息

卢耀斌，1984年生，哈尔滨工业大学工学博士。主要从事污水处理与资源化方面的研究工作，包括海水淡化与资源化、膜生物反应器、电化学和生物电化学污水高效处理与资源化等领域。

二、研究方向

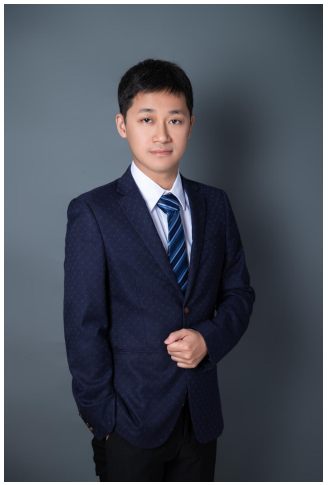
污水处理与资源化，生物电化学，电化学催化氧化处理污水。

三、教育经历

2003. 9-2007. 7，哈尔滨工业大学，环境工程，获学士学位；

2007. 9-2009. 7，哈尔滨工业大学，环境科学与工程，获硕士学位；

2009. 9-2014. 4，哈尔滨工业大学，环境科学与工程，获博士学位。



四、工作经历

2014. 5-2015. 5，美国弗吉尼亚理工大学，博士后；

2015. 9-2019. 11，中山大学，环境科学与工程学院，特聘副研究员；

2019. 12-至今，广东工业大学环境生态工程研究院，副教授。

五、主要荣誉

1.2011年黑龙江省科技发明二等奖“MBR+蠕虫附着型生物床对城市污水污泥减量技术与设备”，排名8；

2.2013年黑龙江省科技发明一等奖“低压膜法处理城市水过程中膜污染控制理论与技术”，排名6；

3.第十九届全国发明博览会银奖“MBR联合蠕虫附着型生物床对城市污水污泥减量的设备”。

六、科研项目

1.国家自然科学基金青年科学基金项目，51608547，新型生物电化学系统高效处理垃圾渗滤液的机理研究，2017/01-2019/12，20万元，主持；

2.广州市科技计划项目科学研究一般项目，201804010450，新型堆叠式原位电芬顿技术高效处理农药废水的机理及应用研究，2018/04-2020/03，20万元，主持；

3.广东省环境污染控制与修复技术重点实验室开放基金，2016K0013，双流式微生物脱盐池处理垃圾渗滤液中污染物迁移转化规律及特性分析，2016/01-2017/12，2万元，主持。

4.中山大学2018年度高校基本科研业务费青年教师培育项目，18lgpy43，15万元，主持。

5.国家重点研发计划子课题——海水抽水蓄能电站环境影响评估与生态修复关键技术研究，2017YFB0903703，2017.07-2021.06，192万元，排名第五，课题骨干及课题联系人。

七、科研成果

（一）发表文章与专著

1.**Yaobin Lu**and Zhen He*, Mitigation of salinity buildup and recovery of wasted salts in a hybrid osmotic membrane bioreactor-electrodialysis system,***Environmental Science & Technology***, 2015, 49, 10529-10535.

2.Xiao Li, Cuiping Zeng,**Yaobin Lu***, Guangli Liu, Haiping Luo, Renduo Zhang, Development of methanogens within cathodic biofilm in the single-chamber microbial electrolysis cell.***Bioresource Technology***, 2019, 274: 403-409.

3.**Yaobin Lu**, Guangli Liu*, Haiping Luo, Renduo Zhang, Efficient in-situ production of hydrogen peroxide using a novel stacked electrosynthesis reactor.***Electrochimica Acta***, 2017, 248: 29-36.

4.**Yaobin Lu**, Haiping Luo, Kunpeng Yang, Guangli Liu*, Renduo Zhang, Xiao Li, Bo Ye, Formic acid production using a microbial electrolysis desalination and chemical-production cell.***Bioresource Technology***, 2017, 243: 118-125.

5.**Yaobin Lu**, Songli He, Dantong Wang, Siyuan Luo, Aiping Liu, Haiping Luo, Guangli Liu*, Renduo Zhang, A pulsed switching peroxi-coagulation process to control hydroxyl radical production and to enhance 2,4-Dichlorophenoxyacetic acid degradation.***Frontiers of Environmental Science & Engineering***. 2018, 12, (5): 9.

6.Shicheng Wei, Cuiping Zeng,**Yaobin Lu***, Guangli Liu, Haiping Luo, Renduo Zhang, Degradation of antipyrine in the Fenton-like process with a La-doped heterogeneous catalyst.***Frontiers of Environmental Science & Engineering***. 2019, 13, (5): 66.

7.Wanjun Cui, Guangli Liu, Cuiping Zeng,**Yaobin Lu***, Haiping Luo, Renduo Zhang, Improved hydrogen production in the single-chamber microbial electrolysis cell with inhibition of methanogenesis under alkaline conditions.***RSC Advances***. 2019, 9, 30207–30215.

8.**Yaobin Lu**, Ibrahim M. Abu-Reesh, Zhen He*, Treatment and desalination of domestic wastewater for water reuse in a four-chamber microbial desalination cell,***Environmental Science and Pollution Research***, 2016, 23(17), 17236-17245.

9.Heyang Yuan#,**Yaobin Lu#**, Ibrahim M. Abu-Reesh, and Zhen He*, Bioelectrochemical production of hydrogen in an innovative pressure-retarded osmosis/microbial electrolysis cell system: experiments and modeling,***Biotechnology for Biofuels***, 2015, 8:1-12.

10.Xiaojin Li#,**Yaobin Lu#**, Zhen He*, Removal of reverse-fluxed ammonium by anammox in a forward osmosis system using ammonium bicarbonate as a draw solute,***Journal of Membrane Science***, 2015, 495, 424-430.

11.Guofang Xu, Xiyuan Zheng,**Yaobin Lu***, Guangli Liu*, Haiping Luo, Xiao Li, Renduo Zhang, Song Jin, Development of microbial community within the cathodic biofilm of single-chamber air-cathode microbial fuel cell.***Science of The Total Environment***. 2019, 665: 641-648.

12.**Yaobin Lu**, Mohan Qin, Heyang Yuan, Ibrahim M. Abu-Reesh, Zhen He*, When bioelectrochemical systems meet forward osmosis: accomplishing wastewater treatment and reuse through synergy,***Water***, 2014, 7(1), 38-50.

13.Wei Wang,**Yaobin Lu**, Haiping Luo, Guangli Liu*, Renduo Zhang, Song Jin, A microbial electro-fenton cell for removing carbamazepine in wastewater with electricity output.***Water research***, 2018, 139:58-65.

14.Bo Ye,**Yaobin Lu**, Haiping Luo, Guangli Liu*, Renduo Zhang, Tetramethyl ammonium hydroxide production using the microbial electrolysis desalination and chemical-production cell with long anode,***Bioresource Technology***, 2018, 251: 403-406.

15.Yongmin Hu,**Yaobin Lu**, Guangli Liu*, Haiping Luo, Renduo Zhang, Xiaofeng Cai, Effect of the structure of stacked electro-Fenton reactor on treating nanofiltration concentrate of landfill leachate.***Chemosphere***, 2018, 202: 191-197.

16.Xiao Li,**Yaobin Lu**, Haiping Luo, Guangli Liu*, Renduo Zhang, Microbial stratification structure within cathodic biofilm of the microbial fuel cell using the freezing microtome method.***Bioresource Technology***, 2017, 241: 384-390.

17.Bo Ye, Haiping Luo,**Yaobin Lu**, Guangli Liu*, Renduo Zhang, Xiao Li,Improved performance of the microbial electrolysis desalination and chemical production cell with enlarged anode and high applied voltages.***Bioresource Technology***,2017 , 244: 913-919.

18.Jun Lan, Yongxiang Ren*,**Yaobin Lu**, Guangli Liu*, Haiping Luo, Renduo Zhang, Combined microbial desalination and chemical-production cell with Fenton process for treatment of electroplating wastewater nanofiltration concentrate.***Chemical Engineering Journal***. 2019, 359: 1139-1149.

19.Jiaping Hu, Cuiping Zeng, Guangli Liu,**Yaobin Lu**, Renduo Zhang, Haiping Luo*, Enhanced sulfate reduction accompanied with electrically-conductive pili production in graphene oxide modified biocathodes.***Bioresource Technology***. 2019, 282: 425-432.

20.Haiping Luo, Jing Hu, Lei Qu, Guangli Liu, Renduo Zhang,**Yaobin Lu**, Jiaxin Qi, Jiaping Hu, Cuiping Zeng*, Efficient reduction of nitrobenzene by sulfate-reducer enriched biocathode in microbial electrolysis cell.***Science of the Total Environment***. 2019, 674, 336-343.

21.Haiping Luo, Guofang Xu,**Yaobin Lu**, Guangli Liu*, Renduo Zhang, Xiao Li, Xiyuan Zheng, Meihan Yu,Electricity generation in a microbial fuel cell using yogurt wastewater under alkaline conditions.***RSC Advances***,2017, 7: 32826-32832.

22.Wei Wang,**Yaobin Lu**, Haiping Luo, Guangli Liu*, Renduo Zhang,Effect of an improved gas diffusion cathode on carbamazepine removal using the electro-Fenton process.***RSC Advances***, 2017, 7, 25627–25633.

23.Haiping Luo, Hui Li,**Yaobin Lu**, Guangli Liu*, Renduo Zhang. Treatment of reverse osmosis concentrate using microbial electrolysis desalination and chemical production cell.***Desalination***, 2017,408 (15):52-59.

24.Yinbo Xiang, Guangli Liu, Renduo Zhang,**Yaobin Lu**, Haiping Luo*. Acetate production and electron utilization facilitated by sulfate-reducing bacteria in a microbial electrosynthesis system.***Bioresource Technology***, 2017, 241, 821-829.

25.Yinbo Xiang, Guangli Liu, Renduo Zhang,**Yaobin Lu**, Haiping Luo*. High-efficient acetate production from carbon dioxide using a bioanode microbial electrosynthesis system with bipolar membrane.***Bioresource Technology***, 2017, 233: 227-235.

26.Haiping Luo, Xing Cheng, Guangli Liu*, Yajing Zhou,**Yaobin Lu**, Renduo Zhang, Xiao Li, Weikai Teng. Citric acid production using a biological electrodialysis with bipolar membrane.***Journal of Membrane Science***, 2017, 523:122-128.

27.Haiping Luo, Wenkai Teng, Guangli Liu*, Renduo Zhang,**Yaobin Lu**. Sulfate reduction and microbial community of autotrophic biocathode in response to acidity.***Process Biochemistry***, 2017, 54: 120-127.

28.Mohan Qin, Qingyun Ping,**Yaobin Lu**, Ibrahim M. Abu-Reesh , Zhen He*, Understanding electricity generation in osmotic microbial fuel cells through integrated experimental investigation and mathematical modeling,***Bioresource Technology***, 2015, 195: 194-201.

29.Yu Tian*, Hui Li, Lipin Li, Xinying Su,**Yaobin Lu**, Wei Zuo, Jun Zhang, In-situ integration of microbial fuel cell with hollow-fiber membrane bioreactor for wastewater treatment and membrane fouling mitigation,***Biosensors and Bioelectronics***, 2015, 64, 189-195.

30.Jia Liu, Yu Tian*, Dezhen Wang,**Yaobin Lu**, Jun Zhang, Wei Zuo, Quantitative analysis of ammonia-oxidizing bacteria in a combined system of MBR and worm reactors treating synthetic wastewater,***Bioresource Technology***, 2014, 174, 294-301.

31.Xinying Su, Yu Tian*, Zhicai Sun,**Yaobin Lu**, Zhipeng Li, Performance of a combined system of microbial fuel cell and membrane bioreactor: Wastewater treatment, sludge reduction, energy recovery and membrane fouling,***Biosensors and Bioelectronics***, 2013, 49: 92-98.

32.Yu Tian*, Zhipeng Li, Yi Ding,**Yaobin Lu**, Identification of the change in fouling potential of soluble microbial products (SMP) in membrane bioreactor coupled with worm reactor,***Water Research***, 2013, 47(6): 2015-2024.

33.Zhipeng Li, Yu Tian*, Yi Ding,**Yaobin Lu**, Systematic analysis of biomass characteristics associated membrane fouling during start-up of a hybrid membrane bioreactor using worm reactor for sludge reduction,***Bioresource Technology***, 2013, 136: 155-162.

34.Yu Tian*,**Yaobin Lu**, Zhipeng Li, Performance analysis of a combined system of membrane bioreactor and worm reactor: wastewater treatment, sludge reduction and membrane fouling,***Bioresource Technology***, 2012, 121: 176-182.

35.Yu Tian*, Zhipeng Li,**Yaobin Lu**, Changes in characteristics of soluble microbial products and extracellular polymeric substances in membrane bioreactors coupled with Static Sequencing Batch Worm Reactor: Relation to membrane fouling,***Bioresource Technology***, 2012, 122: 62-69.

36.Yu Tian*, Zhipeng Li, Lin Chen,**Yaobin Lu**, Role of extracellular polymeric substances (EPS) in membrane fouling of membrane bioreactor coupled with worm reactor,***Bioresource Technology***, 2012, 123: 566-573.

37.Yu Tian*,**Yaobin Lu**, Simultaneous nitrification and denitrification process in a new Tubificidae- reactor for minimizing nutrient release during sludge reduction,***Water Research***, 2010, 44(20): 6031-6040.

38.Yu Tian*,**Yaobin Lu**, Lin Chen, Hailian Lin, Optimization of process conditions with attention to the sludge reduction and stable immobilization in a novel Tubificidae-reactor,***Bioresource Technology***, 2010, 101(15): 6069-6076.

39.田禹,左薇,陈琳,**卢耀斌**,李之鹏.城市污水污泥过程减量及资源化利用理论与技术,科学出版社, 2012.**（专著）**

（二）获得或申请专利

1.刘广立、崔婉俊、**卢耀斌**、周一舟、骆海萍、张仁铎，一种垃圾渗滤液双流式微生物脱发明专利，专利申请号：ZL 201610606508.5。

2.刘广立、崔婉俊、**卢耀斌**、黄健斌、骆海萍、张仁铎，一种电芬顿产自由基控制方法，发明专利：ZL201610606507.0。

3.刘广立、杨昆鹏、余淑贤、骆海萍、**卢耀斌**、张仁铎，一种原位固定化微生物燃料电池阳极微生物的方法，发明专利：ZL201511034635.4。

4.刘广立、杨昆鹏、余淑贤、骆海萍、**卢耀斌**、张仁铎，一种复合材料原位固定化微生物燃料电池阳极微生物的方法，发明专利：ZL201511034634.X。

5.刘广立、崔婉俊、**卢耀斌**、骆海萍、张仁铎，一种高效制备过氧化氢的堆叠式电合成反应器，实用新型专利：ZL201720888557.2。

6.刘广立、崔婉俊、吴伟、骆海萍、**卢耀斌**、张仁铎，一种二氧化锰生物电池制备方法，发明专利：ZL201610606509.X。

7.田禹、左薇、**卢耀斌，**MBR联合蠕虫附着型生物床对城市污水污泥减量的设备，发明专利：ZL200710144318.7。

8.田禹、左薇、**卢耀斌，**城市污水污泥减量处理的蠕虫附着型生物床，发明专利：ZL200710144319.1。

9.田禹、**卢耀斌、**延崇建、纪超，具有可变曝气和蠕虫附着斜板的剩余污泥减量生物反应器，发明专利：ZL201010106923.7。

10.田禹、**卢耀斌、**纪超、延崇建，污泥减量与反硝化脱氮耦合的城市污水污泥联合处理系统，发明专利：ZL201010106775.9。

11.刘广立、李慧、骆海萍、**卢耀斌**、张仁铎，一种城市污水厂出水回用中反渗透浓水的处理方法，专利申请号：2016010606506.6。

八、联系方式

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上一篇：何艳虎

下一篇：张众