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**博士，副教授**

联系方式 教育背景 研究经历 主要研究方向 主讲课程 获奖情况

主持的主要科研项目 近几年发表论文、专利及著作 授权发明专利

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**教育背景**

2009.9—2014.7，中国科学技术大学，环境工程，工学博士

2005.9—2009.7，山东大学，环境科学，理学学士

**研究经历**

2018.3-至今，南京师范大学，环境学院，副教授

2015.02-2016.12，新加坡南洋理工大学，博士后

2014.12-2018.01，扬州大学，环境科学与工程学院，讲师

**主要研究方向**

废水生物处理及资源化

微生物胞外电子传递

获奖情况

1. 南京师范大学中青年领军人才--青年学术骨干，2019。

2. 南京留学人员科技创新项目，2019。

**主持的主要科研项目**

国家自然科学基金面上项目：淡水湖泊沉积物中电缆细菌介导低浓度硫酸盐减少甲烷排放及机制研究，2021.01-2024.12，主持；

江苏省自然科学基金面上项目：基于长距离电子传递的硫氧化调控淡水湖泊沉积物甲烷排放的研究，2020.7-2023.6，主持；

国家自然科学基金青年项目：碳纳米管介导的硫酸盐有机废水产甲烷及电子竞争机制研究，2018.1-2020.12，主持；

江苏省自然科学基金青年项目：磁铁矿颗粒在酚类化合物高温降解产甲烷过程中的作用机制研究，2016.07-2019.06，主持；

国家自然科学基金面上项目：合成气混菌发酵的机理研究和过程调控，2015.1-2018.12，主要参与人

光大环保有限公司技术开发委托项目：Anammox菌种养殖及检测，主持

**近几年发表论文、专利及著作**

Yun Chen, Roby Ruhyadi, Jinjin Huang, Wang Yan, Guoxiang Wang, **Nan Shen*,** W. Hanggoro, A novel strategy for improving volatile fatty acid purity, phosphorus removal efficiency, and fermented sludge dewaterability during waste activated sludge fermentation, Waste Management 119 (2021) 195-201

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Li Wang#, **Nan Shen#**, Adrian Oehmen, Yan Zhou*, The impact of temperature on the metabolism of volatile fatty acids by polyphosphate accumulating organisms (PAOs), Environmental Research, 2020, 188, 109729

**Nan Shen**, Zhu Liang, Yun Chen, Hailiang Song, Junfeng Wan, Enhancement of syntrophic acetate oxidation pathway via single walled carbon nanotubes addition under high acetate concentration and thermophilic condition, Bioresource Technology, 2020, 306, 123182

**Nan Shen**, Kun Dai, Xiu-Yang Xia, Raymond Jianxiong Zeng, Fang Zhang, Conversion of syngas (CO and H2) to biochemicals by mixed culture fermentation in mesophilic and thermophilic hollow-fiber membrane biofilm reactors, Journal of Cleaner Production, 2018, 202, 536-542

**Nan Shen**, Yun Chen, Yan Zhou*, Multi-cycle operation of Enhanced Biological Phosphorus Removal (EBPR) with different carbon sources under high temperature, Water Research, 2017, 114: 308-315

**Nan Shen**, Yan Zhou*, Enhanced Biological Phosphorus Removal with different carbon sources, Applied Microbiology and Biotechnology, 2016, 100(11): 4735-4745

**Nan Shen**, Xiuyang Xia, Yun Chen, Hang Zheng, Yongchen Zhong, Raymond J. Zeng*, Palladium nanoparticles produced and dispersed by Caldicellulosiruptor saccharolyticus enhance the degradation of contaminants in water, RSC advances, 2015, 5: 15559-15565

**Nan Shen#**, Yingchao Huo#, Jiejie Chen, Fang Zhang, Hang Zheng, Raymond J. Zeng*, Decolorization by Caldicellulosiruptor saccharolyticus with dissolved hydrogen under extreme thermophilic conditions, Chemical Engineering Journal, 2015, 262: 847-853

**Nan Shen**, Shijie Yuan, Chao Wu, Yuanyuan Cheng*, Xiangning Song, Wenwei Li, Zhonghua Tong, Hanqing Yu, Rapid isolation of a facultative anaerobic electrochemically active bacterium capable of oxidizing acetate for electrogenesis and azo dyes reduction, Applied Biochemistry and Biotechnology, 2014, 173(2): 461-471

**Nan Shen**, Feng Zhang, Fang Zhang, Raymond J. Zeng*, Evaluation of the after-effects of cyanobacterial cells removal and lysis by photocatalysis using Ag/AgBr/TiO2, Water Science and Technology, 2014, 70(5): 828-834

**Nan Shen**, Fang Zhang, Xiangning Song, Yanshan Wang, Raymond J. Zeng*, Why is the ratio of H2/acetate over 2 in glucose fermentation by Caldicellulosiruptor saccharolyticus? International Journal of Hydrogen Energy, 2013, 38(26): 11241-11247

Yun Chen, **Nan Shen**, Ting Wang, Fang Zhang, Raymond J. Zeng, Ammonium level induces high purity propionate production in mixed culture glucose fermentation, RSC Advances, 2017, 7, 518-525

Wangwang Yan, **Nan Shen**, Yeyuan Xiao, Yun Chen, Faqian Sun, Vinay Kumar Tyagi, Yan Zhou*, The role of conductive materials in the start-up period of thermophilic anaerobic system, Bioresource Technology,

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Qin Yang, **Nan Shen**, Zarraz M.-P. Lee, Guangjing Xu, Yeshi Cao, Beehong Kwok, Winson Lay, Yu Liu, Yan Zhou*, Simultaneous Nitrification, Denitrification and Phosphorus Removal (SNDPR) in a Full-Scale Water Reclamation Plant located in Warm Climate, Water Science and Technology, 2016, 74(2): 448-456

Hui Lin, Yun Chen*, **Nan Shen**, Yang Deng, Wang Yan, Roby Ruhyadi, Guoxiang Wang, Effects of individual volatile fatty acids (VFAs) on phosphorus recovery by magnesium ammonium phosphate, Environmental Pollution, 2020, 261, 114212

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Yanan Bai, Yongze Lu, **Nan Shen**, Tai-Chu Lau, Raymond J. Zeng*, Investigation of Cr(VI) reduction potential and mechanism by Caldicellulosiruptor saccharolyticus under glucose fermentation condition, Journal of Hazardous Materials, 2017, 344:585

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Yun Chen, Man Chen, **Nan Shen**, Raymond J. Zeng*, H2 production by the thermoelectric microconverter coupled with microbial electrolysis cell, International Journal of Hydrogen Energy, 2016, 41: 22760-8

Fang Zhang, Jing Ding, **Nan Shen**, Yan Zhang, Zhaowei Ding, Raymond J. Zeng*, In-situ hydrogen utilization for high purity acetate production in mixed culture hollow-fiber membrane biofilm reactor, Applied Microbiology and Biotechnology, 2013, 97: 10233–10240

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