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周 健（博士生导师）

姓名：周健

出生年月：1964年10月

技术职务：教授、博导

行政职务：无

电子邮箱：zhoujiantt@126.com

通讯地址重庆沙坪坝重庆大学B区城市建设与环境工程学院

1.主要研究方向：

城镇污水处理工业废水处理污水厂污泥处理及处置河流水质保持及改善

2.社会兼职、国内外学术团体任职情况：

国际水协（IWA）会员

《Water Research》、《Bioresource technology》、《Biochemical Engineering Journal》、《Science of the Total Environment》等期刊审稿人

3.教育及进修经历

1981年~1985年重庆大学给排水工程专业工学学士学位

1992年~1995年重庆大学环境工程专业工学硕士学位

1998年~2004年重庆大学市政工程专业工学博士学位

4.主持或主研的科学研究项目

（1）主持国家水体污染控制与治理科技重大专项“小城镇水污染控制技术集成与评估”课题（2017ZX07401001-002）；

（2）主持重庆市技术创新与应用发展专项重点项目“城镇污水厂污泥厌氧消化液处理技术研究”（cstc 2019jscx-tjsbx0002-02）

（3）主持重庆市技术创新与应用示范项目社会民生类重点研发项目“餐厨垃圾发酵废水高效低成本处理技术研究及示范”（cstc2018jscx-mszdX0070）

（4）主持重点产业共性关键技术创新专项“基于水质提升的高技术成套装备与新型填料开发”（cstc2017zdcy-zdyfx0081）

（5）主持重庆市社会民生科技创新专项项目：“基于嗜热菌-甲烷氧化菌的制浆废水生物处理技术研究”课题（cstc2015shmszx20008）

（6）主持重庆市社会事业与民生保障科技创新专项“污水厂尾水深度处理技术与装备研究”课题（cstc2015shms-ztzx20003）

（7）主持国家水体污染控制与治理科技重大专项“重庆主城重污染河流水污染控制与水质改善技术研究与示范”课题（2012ZX07307-002）；

（8）主持国家水体污染控制与治理科技重大专项“三峡库区山地小城镇水污染控制关键技术研究与示范”课题（2009ZX07315－005）；

（9）主持国家水体污染控制与治理科技重大专项，“食品工业园区超高盐超高氮磷有机废水处理关键技术研究”课题（2008ZX07315－004）；

（10）主持国家科技支撑计划子课题“地表水水源热泵系统尾水污染综合评价方法及防治技术研究”（2007BAB21B03-1）；

（11）主持国家十五攻关项目—水环境安全关键技术研究与示范课题“三峡库区城镇污水高效低成本处理集成工艺与设备研究”；

（12）主持国家十五攻关项目—小城镇环境保护关键技术研究及设备开发，子课题“一体化多级生物膜设备处理小城镇污水研究；

（14）主持国家建设部国际合作荷兰政府赠款项目，子课题“城镇污水下水道处理技术及其组合系统试验和优化集成研究”及子课题西部小城镇污水处理技术政策研究；

（15）主持重庆市科委攻关项目：高盐高浓度有机榨菜废水处理技术研究；

（16）主持重庆市科委重点项目—子课题“适用于重庆小城镇的废水处理关键技术与示范研究“及”高氮高磷高有机浓度丝绸废水处理技术研究”；

（17）主持重庆市科委重大项目“典型城市河流修复对策及治理技术研究与工程示范”子课题“城市污染水体物化-生物强化修复关键技术研究与示范”；

（18）主持横向课题“高有机浓度难降解制药废水处理技术研究”；

（19）主研国家自然基金重点项目—人类聚居区的水环境保护与水资源综合利用，子课题“AB法A段机理研究”。

5.主要学术论文与代表作：

论文：

1. Metagenomic analysis reveals enhanced nutrients removal from low C/N municipal wastewater in a pilot-scale modified AAO system coupling electrolysis[J]. Water Research 173 (2020) 115530

2. Efficient nitrogen removal in a modified sequencing batch biofilm reactor treating hypersaline mustard tuber wastewater: The potential multiple pathways and key microorganisms[J].Water Research 177 (2020) 115734

3. Sulfur and iron cycles promoted nitrogen and phosphorus removal in electrochemically assisted vertical flow constructed wetland treating wastewater treatment plant effluent with high S/N ratio[J]. Water Research, 2019, 151/20-30

4. Cost-effective domestic wastewater treatment and bioenergy recovery in an immobilized microalgal-based photoautotrophic microbial fuel cell (PMFC)[J].Chemical Engineering Journal 372 (2019) 956–965

5. Efficient simultaneous partial nitrification, anammox and denitrification (SNAD) system equipped with a real-time dissolved oxygen (DO) intelligent control system and microbial community shifts of different substrate concentrations [J]. Water Research, 2017, 119：201-211.

6. The variation on nitrogen removal mechanisms and the succession of ammonia oxidizing archaea and ammonia oxidizing bacteria with temperature in biofilm reactors treating saline wastewater [J]. Bioresource Technology 314 (2020) 123760

7. Electron storage and resupply modes during sulfur cycle enhanced nitrogen removal stability in electrochemically assisted constructed wetlands under low temperature [J].Bioresource Technology 300 (2020) 122704

8. Effect of COD/TN ratio on nitrogen removal efficiency, microbial community for high saline wastewater treatment based on heterotronitrification-aerobic denitrification process [J].Bioresource Technology 301 (2020) 122726

9. Simultaneous partial nitrification, anammox and denitrification (SNAD) process for nitrogen and refractory organic compounds removal from mature landfill leachate: Performance and metagenome-based microbial ecology [J]. Bioresource Technology 294 (2019) 122166

10. The alleviative effect of exogenous phytohormones on the growth,physiology and gene expression of Tetraselmis cordiformis under high ammonia-nitrogen stress [J]. Bioresource Technology 282 (2019) 339–347

11. Establishment and efficiency analysis of a single-stage denitrifying phosphorus removal system treating secondary effluent [J]. Bioresource Technology 288 (2019) 121520

12. Enhanced hydrolysis-acidification of high-solids and low-organic-content sludge by biological thermal-alkaline synergism [J]. Bioresource Technology 294 (2019) 122234

13. Coupling of thermophilic biofilm-based systems and ozonation for enhancedorganicsremoval from high-temperaturepulping wastewater Performance, microbial communities, and pollutant transformations [J]. Science of the Total Environment 714 (2020) 136802

14. Toxic effects of terpinolene on*Microcystis aeruginosa*: Physiological, metabolism, gene transcription, and growth effects [J]. Science of the Total Environment, 2020, 719, 137376

15. Facilitating effects of plant hormones on biomass production and nutrients removal by Tetraselmis cordiformis for advanced sewage treatment and its mechanism[J]. Science of the Total Environment 693 (2019) 133650

16. Influence of eugenol on algal growth, cell physiology of cyanobacteria*Microcystis aeruginosa*and its interaction with signaling molecules [J]. Chemosphere 255 (2020) 126935

17. The potential multiple mechanisms and microbial communities in simultaneous nitrification and denitrification process treating high carbon and nitrogen concentration saline wastewater [J]. Bioresource Technology 243 (2017) 708–715

18. A novel methanotrophic co-metabolic system with high soluble methane monooxygenase activity to biodegrade refractory organics in pulping wastewater [J]. Bioresource Technology 256 (2018) 358–365

19. Intensified nitrogen and phosphorus removal by embedding electrolysis in an anaerobic–anoxic–oxic reactor treating low carbon/nitrogen wastewater [J]. Bioresource Technology, 2018,256:562–565.

20. Robustness and microbial consortia succession of simultaneous partial nitrification, ANAMMOX and denitrification (SNAD) process for mature landfill leachate treatment under low temperature [J]. Biochemical Engineering Journal 132 (2018) 112–121

21. The potential multiple mechanisms and microbial communities in simultaneous nitrification and denitrification process treating high carbon and nitrogen concentration saline wastewater [J]. Bioresource Technology, 2017, 243: 708-715

22. Bacterial community structure in simultaneous nitrification, denitrification and organic matter removal process treating saline mustard tuber wastewater as revealed by 16S rRNA sequencing r[J]. Bioresource Technology, 2017, 228: 0960-8524

23. In situ excess sludge reduction in SBBR through uncoupling of metabolism induced by novel aeration modes[J]. RSC Advances, 2017, 7 2046-2069

24. Start-up and microbial communities of a simultaneous nitrogen removal system for high salinity and high nitrogen organic wastewater via heterotrophic nitrification[J]. Bioresource Technology, 2016, 216:0960-8524.

25. Cometabolic degradation of lincomycin in a Sequencing Batch Biofilm Reactor (SBBR) and its microbial community[J]. Bioresource Technology, 2016, 214: 0960-8524

26. A novel process combining simultaneous partial nitrification, anammox and denitrification (SNAD) with denitrifying phosphorus removal (DPR) to treat sewage[J]. Bioresource Technology, 2016, 222:0960-8524

27. Effects of dissolved oxygen on microbial community of single-stage autotrophic nitrogen removal system treating simulating mature landfill leachate [J]. Bioresource Technology, 2016, 218: 962-968

28. Start-up and bacterial communities of single-stage nitrogen removal using anammox and partial nitritation (SNAP) for treatment of high strength ammonia wastewater [J]. Bioresource Technology, 2014, 169: 652-657.

29. Study on the Mutual Interactions among the Parameters of a CANON system and Its Coping Strategy When Operating at Room Temperature (15℃ to 25℃) Using Response Surface Methodology [J]. Water Science and Technology, 2014, 69(9): 1805-1812.

30. processing of raw wastewater in a septic tank leads to phosphorus removal by phosphine production in a sequencing batch biofilm reactor (SBBR) [J]. Desalination and water Treaterment, 2016,157: 1944-3994

专利：

1.发明专利：一种缺氧生物滤池反硝化同步除磷脱氮深度处理系统的构建方法（ZL201410477710.3）

2.发明专利：一种低浓度氨氮污水自养脱氮系统的构建（ZL201410520044.7）

3.发明专利：一种城镇污水高标准除磷脱氮方法（ZL201610175142.0）

4.发明专利：一种用于污水处理的填料及其制备方法（ZL201110257488.2）

5.发明专利：一种跌水曝气式污水输送处理渠道（ZL20122058413.6）

6.发明专利：江水源热泵系统尾水排放结构（ZL201010527138.9）

7.发明专利：一体化生物生态协同污水处理方法及反应器（ZL200910104616.2）

8.发明专利：一种间歇流/连续流交替运行的污水处理反应器（ZL200910104618.1）

9.发明专利：压力管式污水处理反应器（ZL201010527136.x）

10.发明专利：复合生态型微电解移动式水体原位修复装置（ZL200810069407.4）

11.发明专利：用于污水处理的生物膜反应设备（ZL200820100500.2）

12.发明专利：一种处理高浓度有机废水的序批式组合生物膜一体化设备（ZL200510057100.9）

13.发明专利：周边布水折流复合式水解酸化反应器（ZL200610095266.4）

14.发明专利：组合式多级生物膜法污水处理设备（ZL 200520010630.3）

6.主要获奖情况

1.高盐高氮磷高浓度榨菜废水治理关键技术与应用，重庆市科学技术奖科技进步二等奖,第4；

2.小城镇污水处理经济适用技术体系研究与应用，重庆市科学技术奖科技进步二等奖,第7；

2.典型城市河流修复对策及治理技术研究与工程示范，重庆市科学技术奖科技进步三等奖，第4；

3.小城镇环境保护关键技术研究及设备开发，教育部高等学校科学技术奖科技进步二等奖，第13。

上一条：阳春（博士生导师） (2917.htm) 下一条：郑怀礼（博士生导师） (1654.htm)

【关闭】