



个人简介

姓名：马聪 专业：环境工程

学历：博士 职称：副教授

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主要研究方向

膜法水处理技术（包括：新型膜材料的开发、新型膜反应器及耦合工艺的开发、膜污染机理及控制研究等）；污水处理及资源化研究及水污染控制理论与技术等。

教育经历

2001/9-2005/7，哈尔滨工业大学，给水排水，本科

2005/9-2007/7，哈尔滨工业大学，市政工程，硕士

2007/9-2013/7，哈尔滨工业大学，市政工程，博士

2011/10-2012/11，荷兰代尔夫特理工大学，市政工程，联合培养博士

工作经历

2013/8-2019/12，天津工业大学，环境科学与工程学院，讲师

2016/2-2018/3，美国康涅狄格大学，化学与生物分子工程系，博士后

2020/1 至今，天津工业大学，环境科学与工程学院，副教授

主持及参加的科研项目

1. 正渗透膜活性层污染机制与控制研究，国家自然科学基金青年基金项目，51508383，2016.1-2018.12，24 万，主持人
2. 基于强亲水改性正渗透膜制备及收获能源微藻过程中的膜污染机制及控制研究，天津市自然科学基金，18JCQNJC09000，2018.4-2021.3，6 万，主持人
3. 基于强亲水改性的抗污染 TFC 正渗透膜制备及收获能源微藻过程中的膜污染机制及控制研究，天津市教委科研计划项目，2019KJ009，2019.11-2022.12，6 万，主持人
4. 正渗透膜活性层污染机制与控制研究，省部共建分离膜与膜过程国家重点实验室自主培育课题，15PTSYJC00230，2015.8-2017.12，3 万，主持人
5. 基于"后絮凝"控制的膜法饮用水处理单元设计机理研究，国家自然科学基金青年基金项目，51308390，2014.1-2016.12，25 万，第二完成人
6. 可控合成单晶面 Ni 基双金属催化剂及其对水中联氨化合物的降解机制研究，国家自然科学基金青年基金项目，51508384，2016.1-2018.12，24 万，第三完成人

发表学术论文

1. **Ma, C.**, Huang, J., Wang L., Zhao, B., Zhang, Z., Zhang, H. Microalgae dewatering using a hybrid dead-end/cross-flow forward osmosis system: Influence of microalgae properties, draw solution properties, and hydraulic conditions. *Algal research* 2020.
2. Yan, X., Du, W., **Ma, C.***, Cheng, S., Li, X. Humic acid adsorption behavior and mechanism comparison between biochars and activated carbon. *Desalination and Water Treatment* 2020, 173, 213-222.
3. Yan, X., Huo, L., **Ma, C.***, Lu, J. Layer-by-layer assembly of graphene oxide-TiO₂ membranes for enhanced photocatalytic and self-cleaning performance. *Process Safety and Environmental Protection* 2019, 130, 257-264.
4. Xiong, J., Hu, B., **Ma, C.***, Zuo, X.T*. Sludge characteristics and membrane fouling in membrane bioreactors with various sludge retention times. *Desalination and Water Treatment* 2019, 140, 58-68.

5. Ran, Z., Wang, L., Fang, Y., **Ma, C.***, Li, S*. Photocatalytic degradation of atenolol by TiO₂ irradiated with an ultraviolet light emitting diode: Performance, kinetics, and mechanism insights. *Catalysts* 2019, 9.
6. **Ma, C.**, Ran, Z., Yang, Z., Wang, L., Wen, C., Zhao, B., Zhang, H. Efficient pretreatment of industrial estate wastewater for biodegradability enhancement using a micro-electrolysis-circulatory system. *Journal of Environmental Management* 2019, 250.
7. **Ma, C.**, Huang, J., Wang, Y., Wang, L., Zhang, H., Ran, Z., McCutcheon, J.R. Membrane fouling control by Ca²⁺ during coagulation–ultrafiltration process for algal-rich water treatment. *Environmental Geochemistry and Health* 2019.
8. Liu, Y., Zhang, H., **Ma, C.***, **Sun, N***. Modified nimo nanoparticles for efficient catalytic hydrogen generation from hydrous hydrazine. *Catalysts* 2019, 9.
9. Zuo, X., He, J., **Ma, C.***, **Xiong, J***. Effect of a Ag nanoparticle filler on the performance and antibiofouling properties of a polyvinylidene difluoride membrane. *Desalination and Water Treatment* 2018, 110, 89-99.
10. Yan, X.J., Tang, Y., **Ma, C.***, Liu, Y., Xu, J. Deactivation and regeneration of photocatalysts: A review. *Desalination and Water Treatment* 2018, 124, 160-176.
11. Wen, C., Xu, X., Fan, Y., Xiao, C., **Ma, C***. Pretreatment of water-based seed coating wastewater by combined coagulation and sponge-iron-catalyzed ozonation technology. *Chemosphere* 2018, 206, 238-247.
12. Wang, S., **Ma, C.***, Zhu, Y., Yang, Y., Du, G., Li, J. Deep dewatering process of sludge by chemical conditioning and its potential influence on wastewater treatment plants. *Environmental Science and Pollution Research* 2018.
13. Xu, J., **Ma, C.***, Sun, Y., Shi, W., Yu, S., Wang, L. Advanced treatment of produced water from ASP (Alkali/surfactant/polymer) flooding with polyethersulfone UF membrane for reinjection. *Desalination and Water Treatment* 2017, 61, 42-49.
14. Tian, W.D.[#], **Ma, C.#**, Lin, Y.M., Welles, L., Lopez-Vazquez, C., van Loosdrecht, M.C.M. Enrichment and characterization of a psychrophilic ‘*Candidatus Accumulibacter phosphatis*’ culture. *International Biodeterioration and Biodegradation* 2017, 124, 267-275.

15. Tian, W.D.#, **Ma, C.#**, Lin, Y., Ran, Z.L. Effect of Mg/Ca molar ratios on characteristics of anaerobic-anoxic denitrifying dephosphatation. *Bioresource Technology* 2017, 240, 94-97.
16. **Ma, C.**, Liu, D.L., Wang, L., Zhang, Z.H., Zhang, H.W. Influence of the magnetizing pretreatment on the mitigation of membrane scaling during nanofiltration. *Desalination and Water Treatment* 2017, 96, 61-68.
17. Guo, X.F., Liu, D.L., **Ma, C.***, Wang, J., Zhang, H.W. Membrane fouling mitigation during enhanced coagulation membrane filtration via zero valent iron (ZVI) addition to treat micro-polluted surface water. *Desalination and Water Treatment* 2017, 96, 3-11.
18. Xu, J., **Ma, C.***, Cao, B., Bao, J., Sun, Y., Shi, W., Yu, S. Pilot study on hydrophilized PVDF membrane treating produced water from polymer flooding for reuse. *Process Safety and Environmental Protection* 2016, 104, 564-570.
19. **Ma, C.**, Shi, W., Wang, L., Zhao, X., Zhao, B., Guo, X., Zhang, Z., Zhang, H. Effect of disinfection method on odor and disinfection byproduct control in drinking water treatment. *Desalination and Water Treatment* 2016, 57, 7753-7762.
20. Xu, T., Cui, C., **Ma, C.***. Color composition in a water reservoir and DBPs formation following coagulation and chlorination during its conventional water treatment in northeast of China. *Desalination and Water Treatment* 2015, 54, 1375-1384.
21. **Ma, C.**, Zuo, X., Shi, W., Yu, S., Han, S., Heijman, S.G.J., Rietveld, L.C. Adsorption of 2-methylisoborneol and geosmin from water onto thermally modified attapulgite. *Desalination and Water Treatment* 2014, 52, 999-1006.
22. **Ma, C.**, Yu, S., Shi, W., Heijman, S.G.J., Rietveld, L.C. Effect of different temperatures on performance and membrane fouling in high concentration PAC-MBR system treating micro-polluted surface water. *Bioresource Technology* 2013, 141, 19-24.
23. **Ma, C.**, Wang, L., Li, S., Heijman, S.G.J., Rietveld, L.C., Su, X.B. Practical experience of backwashing with RO permeate for UF fouling control treating surface water at low temperatures. *Separation and Purification Technology* 2013, 119, 136-142.
24. **Ma, C.**, Yu, S., Shi, W., Tian, W., Heijman, S.G.J., Rietveld, L.C. High concentration powdered activated carbon-membrane bioreactor (PAC-MBR) for

slightly polluted surface water treatment at low temperature. *Bioresource Technology* 2012, 113, 136-142.

申请专利

- 1、马聪，黄敬云，王亮，王天一，张国伟，张朝晖，赵斌，李君敬，胡建. 一种基于死端正渗透技术的藻液脱水装置及方法，201910176934.3.
- 2、马聪，黄敬云，王亮，邱飘，苏恬宇，张朝晖，赵斌，李君敬，胡建. 一种基于死端正渗透技术的藻液脱水装置，201920295791.3.