Xiaohua Ma

Department: School of Chemical Engineering
Professional field: Chemical Engineering and Technology
E-mail: xiaohuama@ecust.edu.cn

Profile

2023.01-now East China University Of Science and Technology · School of Chemical Engineering · Professor
2015.09-2022.12 East China University Of Science and Technology · School of Chemical Engineering · Associate Professor
2012.03-2015.08 East China University Of Science and Technology · School of Chemical Engineering · Lecturer
2016.02-2018.02 University of Hong Kong · Postdoctor (co-advisor : Professor Chuyang Y. Tang)
2012.03-2014.04 East China University Of Science and Technology ·Postdoctor(co-advisor : Professor Jinlong Zhang)
2007.09-2012.03 East China University Of Science and Technology · School of Chemical Engineering · doctor (advisor : Professor Zhenliang Xu)
2003.09-2007.06 Chang'an University · Chemical Engineering and Technology · Bachelor

Research Field

1.Micro-nano membrane structure and membrane process regulation
2.Membrane material 3D printing technology
3Molecular identification separation engineering
The main research includes reverse osmosis, pervaporation, catalytic membrane reactor, electronic chemicals' purification and so on.

Research results and main published thesis

1. Jia-Hao Liu, Fei Xie, Han-Zhuo Ding, Jia-Wei Mo, Xiao-Gang Jin, Xiao-Hua Ma*, Zhen-Liang Xu. Evading the permeance-selectivity trade-off dilemma in electrospray-assisted interfacial polymerization polyamide thin-film composite membrane through electrospinning nanofibers interlayer. Desalination, 2023, 558, 116625.
2. Jiawei Mo, Shuai Wang, Fei Xie, Shanshan Liang*, and Xiao-Hua Ma*. Double cross-linked MoS2 intercalation GO membrane: towards high stability and high permeability, Sep. Purif. Technol., 2023, 314, 123523.
3. Wei Huang, Ziyin Wang, Fei Xie, Hanzhuo Ding, Wenxuan Li, Xiaokang Liang, Xiaohua Ma*, Zhenliang Xu. High performance polyamide TFC reverse osmosis membrane fabricated on co-deposition hydrophilic modified polyethylene substrate. Desalination, 2022, 538, 115909.
4. Zi-Yin Wang, Fei Xie, Han-Zhuo Ding, Wei Huang, Xiao-Hua Ma*, Zhen-Liang Xu. Effects of locations of cellulose nanofibers in membrane on the performance of positively charged membranes, J. Membr. Sci., 2022, 652, 120464.
5. Han-zhuo Ding, Fei Xie, Zi-yin Wang, Wei Huang, Xiao-hua Ma*, Zhen-liang Xu. 2D nanosheets optimized electrospray-assisted interfacial polymerization polyamide membrane with excellent separation performance. J. Membr. Sci., 2022, 647, 120308.
6. Dovletjan Taymazov, Hao Zhang, Wen-Xuan Li, Ping-Ping Li, Fei Xie, Xin-Yu Gong, Sheng-Ning Zhang, Xiao-Hua Ma*, Zhen-. Xu. Construction of MoS2 hybrid membranes on ceramic hollow fibers for efficient dehydration of isopropanol solution via pervaporation. Sep. Purif. Technol., 2021, 277(24): 119452.
7. Wen-Xuan Li, Zhe Yang, Wei-Liang Liu, Zhi-Hao Huang, Hao Zhang, Meng-Ping Li, Xiao-Hua Ma*, Chuyang Y. Tang, Zhen-Liang Xu. Polyamide reverse osmosis membranes containing 1D nanochannels for enhanced water purification. J. Membr. Sci., 2021, 618, 118681.
8. Hao Zhang, Xin-Yu Gong, Wen-Xuan Li, Xiao-Hua Ma*, Chuyang Y. Tang, Zhen-Liang Xu. Thin-film nanocomposite membranes containing tannic acid-Fe3+ modified MoS2 nanosheets with enhanced nanofiltration performance. J. Membr. Sci., 2020, 616, 118605.
9. Xin-Yu Gong, Zhi-Hao Huang, Hao Zhang, Wei-Liang Liu, Xiao-Hua Ma*, Zhen-Liang Xu, Chuyang Y. Tang. Novel high-flux positively charged composite membrane incorporating titanium-based MOFs for heavy metal removal. Chem. Eng. J., 2020, 398, 125706.
10.Meng-Ping Li, Xin Zhang, Hao Zhang, Wei-Liang Liu, Zhi-Hao Huang, Fei Xie, Xiao-Hua Ma*, Zhen-Liang Xu. Hydrophilic yolk-shell ZIF-8 modified polyamide thin-film nanocomposite membrane with improved permeability and selectivity. Sep. Purif. Technol., 2020, 247, 116990.
11.Xin Zhang, Meng-Ping Li, Zhi-Hao Huang, Hao Zhang, Wei-Liang Liu, Xin-Ru Xu, Xiao-Hua Ma*, Zhen-Liang Xu*. Fast surface crosslinking ceramic hollow fiber pervaporation composite membrane with outstanding separation performance for isopropanol dehydration. Sep. Purif. Technol., 2020, 234, 116116.