

个人简介:

姓名: 魏俊富 出生年月: 1963年1月
技术职务: 教授 专业及学历: 环境功能材料与应用 理学博士
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教育经历:

2002/09-2005/07 南开大学 高分子化学与物理专业 博士
1985/09-1988/02 天津纺织工学院 纺织化学工程 硕士
1981/09-1985/07 南开大学 有机化学专业 学士

工作经历

2018/11-至今 天津工业大学 化学与化工学院 教授
2009/04-2018/11 天津工业大学 环境与化学工程学院 教授
2002/09-2009/04 天津工业大学 材料化工学院 研究员、教授
1994/09-2002/09 天津工业大学高新技术实业公司, 讲师、副研究员、研究员
1988/02-1994/09 天津纺织工学院 纺织化学工程系, 助教, 讲师

研究方向:

1. 环境功能材料表面结构设计与应用: 主要开展纤维状分离材料的制备及其在环境领域的应用, 包括液体、气体过滤膜材料和纤维状吸附材料的表面结构调控与性能。面向环境污染防治及检测, 开展水面浮油、有害有机物快速吸附; 有机物污染水体的原位修复, 以及水中痕量有机物的快速预富集检测; 水中重金属离子的清除和富集; 有害气体吸附等领域的应用。
2. 聚合物分离膜改性研究: 主要对聚合物分离膜采用接枝方法进行改性, 得到高通量、高抗污染膜和荷电性纳滤膜, 研究其在污水处理、饮用水净化、复杂生物样品分离纯化等领域的应用性能。

荣誉称号:

天津市高校环境学科领军人才, 天津市高校创新团队负责人

获奖与社会兼职:

1. 天津市科学技术进步奖二等奖、三等奖
2. 中国纺织工业联合会科学技术进步奖二等奖
3. 中国纺织工业协会科学技术进步奖一等奖、
4. 国家科技奖励、中小企业创新基金评审专家
5. 教育部和天津市科学技术奖励评审专家
6. 天津、重庆、河北等省市科技项目评审专家
7. 中国环境工程学会重金属专委会委员等。

主持及参加的科研项目：

1. 国家自然科学基金项目：基于强化吸附作用的微污染水中持久性有机物快速去除机理研究(51678409)，主持，在研；
2. 天津市科技计划项目：快速吸附-超滤一体化单兵突发应急饮用水净化技术及装备研究(18ZXJMTG00120)主持，在研；
3. 863计划项目：高灵敏重金属快速检测技术与仪器研发（子课题一微量重金属富集装置及其电化学联用接口的研制）(2013AA065601)，主持，完成；
4. 天津市科技支撑计划项目：熔纺-拉伸-接枝聚烯烃亲水性中空纤维膜制备关键技术研究(13ZCZDGX00500)，主持，完成；
5. 天津市科技创新专项资金项目（R2）：医药行业先进色谱分离纯化材料、设备及成套技术的研发和工业化试验(10FDZDSW01500)，主持，完成；
6. 教育部博士点基金项目：高吸油纤维及其吸附回收有毒有害、易燃易爆有机物的基础研究(20101201110001)，主持，完成；
7. 天津市自然科学基金重点项目：辐射接枝法制备高性能低压荷电中空纤维纳滤膜研究(09JCZDJC23200)，主持，完成；
8. 中国石油集团、福建鑫华股份有限公司等企业委托项目10余项。

代表性学术论文：

- [1] Jian Tian, Junfu Wei*, Huan Zhang, Zhiyun Kong, Yingwen Zhu, Zhi Qin. Graphene oxide-functionalized dual-scale channels architecture for high-throughput removal of organic pollutants from water. Chemical Engineering Journal, 2019, 359:852–862
- [2] Yingwen Zhu, Junfu Wei*, Huan Zhang, Kai Liu, Zhiyun Kong, Yu Dong, Ge Jin,

Jian Tian, Zhi Qin. Fabrication of composite membrane with adsorption property and its application to the removal of endocrine disrupting compounds during filtration process. *Chemical Engineering Journal*, 2018, 352:53–63

[3] Huan Zhang, Dianlong Fang, Zhiyun Kong, Junfu Wei*, Xiaoqing Wu, Shuyi Shen, Weiyuan Cui, Yingwen Zhu. Enhanced adsorption of phthalic acid esters (PAEs) from aqueous solution by alkylbenzene-functionalized polypropylene nonwoven and its adsorption mechanism insight. *Chemical Engineering Journal*, 2018, 331 :406-415

[4] Xiangyu Zhou, Feifei Wang, Yali Ji, Weiting Chen, Junfu Wei*, Fabrication of hydrophilic and hydrophobic sites on polypropylene nonwoven for oil spill cleanup: two dilemmas affecting oil sorption, *Environmental Science & Technology*, 2016, 50(7):3860-3865.

[5] Li Cui, Junfu Wei*, Xiao Du, Xiangyu Zhou, Preparation and evaluation of self-assembled porous microspheres-fibers for removal of bisphenol A from aqueous solution, *Industrial & Engineering Chemistry Research*, 2016, 55(6): 1566-1574.

[6] Xiao Du, Junfu Wei*, Wei Liu et al. Polypropylene nonwoven surface modified through introducing porous microspheres: preparation, characterization and adsorption[J]. *Applied Surface Science*, 2016, 360: 525-533.

[7] Zhiyun Kong, Xiaoqing Wu, Junfu Wei*, Huan Zhang, Li Cui. Preparation and characterization of hydrophilicity fibers based on 2-(dimethylamino)ethyl methacrylate grafted polypropylene by UV-irradiation for removal of Cr(VI) and As(V), *Journal of Polymer Research*, 2016, 23(9): 199.

[8] Lei Wang, Junfu Wei, Bo Wu. Enhancing hydrophilicity performance of polysulfone hollow fiber membrane by surface modification via UV-induced graft polymerization of HEA [J]. *Desalination and Water Treatment*, 2016, 57(35): 16269-16276.

[9] Zhiyun Kong, Junfu Wei, Haitao Guo, et al. The determination of trace amount of Cr(VI) and As(V) in aqueous solution by UV-Vis spectrophotometer assisted with preconcentration on a Quaternary ammonium ion exchange fiber-in-tube[J]. *Desalination and Water Treatment*, 2015, 53 (2), 382-389

- [10]Xiangyu Zhou, Junfu Wei, Shiyong Li et al. Evaluation of different PP grafted sorbent for oil spill cleanup[J]. *Desalination and Water Treatment*, 2015, 53(3): 727-736
- [11]Lei Wang, JunfuWei, KongyinZhao et al. Preparation and characterization of high-hydrophilic polyhydroxy functional PP hollow fiber membrane [J]. *Materials Letters*,2015, 159, 189-192.
- [12]Kai Liu, Junfu Wei, Xiangyu Zhou et al. Construction of amphiphilic segments on polypropylene nonwovensurface and its application in removal of endocrine disruptingcompounds (EDCs) from aqueous solution[J]. *Applied Surface Science*, 2015, 337: 178–187.
- [13]Shaoning Li, Junfu Wei, Yuan Chen, Li Cui, Yue Zhang, Zhao Dai, Shihuai Zhao, Influencing Factors for Organic Spill RecoveryPerformance with a Novel Polypropylene-Methacrylate Sorbent,*Water Environment Research*, 2015, 87(8): 697-706.
- [14]Xiangyu Zhou, Feifei Wang, YaliJi, Junfu Wei. Fabrication of unidirectional diffusion layer onto polypropylene (PP) mat for oil spill cleanup, *Industrial & Engineering Chemistry Research*, 2015, 54(47): 11772-11778.
- [15]HuiranLiu, XupingZhang, ShihuaiZhao, Yingdong Zhang, JunfuWei. Key Factors for Grafting Modified Polypropylene Fiber as a Sorbent for the Removal of Oil from Water, *Environmental Engineering Science*, 2015,32(12): 983-989.
- [16]Zhiyun Kong, Junfu Wei, Yonghua Li, et al. Rapid removal of Cr(VI) ions using quaternary ammonium fibers functioned by 2-(dimethylamino)ethyl methacrylate and modified with 1-bromoalkanes[J]. *Chemical Engineering Journal*, 2014, 254(15): 365–373
- [17]Zhiyun Kong, Junfu Wei, Liang Yang., et al. Stability of acrylic acid grafted poly(vinylidene fluoride) hollow fiber membrane prepared by high-energy electron beam [J]. *Journal of Applied Polymer Science*. 2014, 131: 41165
- [18]Hong-mei Xu, Jun-fu Wei, Xiao-lei Wang. Nanofiltration hollow fiber membranes with high charge density prepared by simultaneous electron beam radiation-induced graft polymerization for removal of Cr(VI)[J]. *Desalination*.

2014,346, 122–130

[19]Xiangyu Zhou, Junfu Wei, Huan Zhang et al. ,Adsorption of phthalic acid esters (PAEs) by amphiphilic polypropylene nonwoven from aqueous solution: The study of hydrophilic and hydrophobic microdomain[J]. Journal of Hazardous Materials, 2014,273,61–69.

[20]Xiangyu Zhou, Junfu Wei, Kai Liu et al.,Adsorption of Bisphenol A Based on Synergy between Hydrogen Bonding and Hydrophobic Interaction[J].Langmuir,2014,30,13861-13868.

[21]Li, SN; Wei, JF; Wang, L; Yang, H; Wang, A; Nie, YX, Phthalate esters removal using modified fiber prepared by two-step electron beam irradiation of methacrylate monomer onto polypropylene substrate,DESALINATION AND WATER TREATMENT,2014; 52 (28-30): 5470-5478.

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[24]Wang Haitao, Wei Junfu, Li Shiyang, Chen Yuan, RenZongchen, QiuShasha, Preparation and characterization of AA/AMPS grafted polypropylene by two-steps electron beam irradiation for filtration of cigarette smoke[J]. Journal of Polymer Research, 2013, 20(1): 1-6.

代表性专利：

[1] 魏俊富，罗先建，赵孔银，一种大尺度三维网络吸水材料的制备方法，授权号：ZL 201510631479.3.

[2] 魏俊富，杜晓，刘巍，赵孔银，一种吸附挥发性有机物的含自组装微球的非织造布的制备方法，授权号：ZL 201510567554.4，

- [3] 魏俊富, 李永花, 孔志云, 赵孔银, 刘娜娜, 张越, 一种具有宽 pH 使用范围的重金属离子吸附纤维的制备及应用, 授权号: ZL201310586459.X
- [4] 魏俊富, 路晖, 赵孔银, 凌茜茜, 孙小静, 一种改性无纺布吸附苯乙烯气体的方法, 授权号: ZL 201310141793.4
- [5] 魏俊富, 刘凯, 赵孔银, 周翔宇, 刘娜娜, 一种支撑层功能化的吸附增强型复合超滤膜的制备及应用, 授权号: ZL 201410814513.6.
- [6] 魏俊富, 崔莉, 孔志云, 王会才, 赵孔银, 一种基于竞争吸附的镉污染稻田的原位快速修复方法, 申请号: 201510304018.
- [7] 魏俊富, 王菲菲, 周翔宇, 污水中乳液的破乳方法, 申请号: 201610532379.X
- [8] 魏俊富, 孙丕超, 赵孔银, 改性聚丙烯中空纤维膜的制备方法及其应用, 申请号: 201610650370.9
- [9] 魏俊富 秦志 董宇 赵孔银 田间 金戈 孔志云 李智峰, 一种快速单向导水非织造布的制备方法, 申请号: 201810526065.8.
- [10] 魏俊富 孔志云 秦志 张环 邹凯健 张天烨 李智峰, 一种快速吸附重金属离子非织造布的制备方法, 申请号: 201811099214.3.
- [11] 魏俊富 张环 董宇 王晓磊 汤小龙 纪雅丽, 一种含有氧化锰亚微米粒子的非织造布、制备方法及其用途, 申请号: 201811103077.6.
- [12] 魏俊富, 汤小龙, 王优, 张环, 辛卓含, 一种负载石墨烯的功能化非织造布、制备方法及其用途, 申请号: 201811436106.0.
- [13] 魏俊富, 田间, 孔志云, 张天烨, 李欣, 一种负载氧化石墨烯的功能化非织造布、制备方法及其应用, 申请号: 201811436095.6.