

一、基本信息

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性别：男

职称：副教授

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研究方向：生物质碳材料



二、教育背景

2011 - 2015, 大连理工大学, 化学工艺, 工学博士

2008 - 2011, 大连理工大学, 无机化学, 理学硕士

2003 - 2007, 青岛大学, 化学, 理学学士

三、工作经历

2017 - 至今, 天津工业大学, 环境科学与工程学院, 讲师, 副教授

2015 - 2017, 天津工业大学, 材料科学与工程学院, 博士后

四、社会及学术兼职

- 国际学术期刊《Sustainability》(SCI) 客座编辑
- 国内期刊《稀有金属》(EI) 青年编委
- 国内期刊《当代化工研究》编委会委员
- 教育部学位与研究生教育发展中心学位论文评审专家
- 兼任Carbon, Chem. Eng. J., Appl. Catal. A, Gen.等国际期刊的学术审稿人

五、主要的教学科研成果(项目、论文、专利、获奖等)

◆ 主持科研项目:

[1] 国家自然科学基金青年科学基金项目: 水热碳层包覆的一维复合光催化剂的设计制备、结构调控及其光催化性能研究 (No. 21706190, 2018.01-2020.12, 主持)

[2] 天津市自然科学基金青年项目: 水热碳包覆层的孔道和表面化学调控及其提升一维光催化剂催化性能的研究 (No. 18JCQNJC76300, 2018.10-2021.09, 主持)

[3] 中国博士后科学基金面上一等资助: 水热碳包覆型光催化剂的设计、制备及其光催化性能研究 (No. 2016M590204, 2016.03-2017.07, 主持)

[4] 天津工业大学纤维材料培育基金: 天然棉花衍生的三维碳纤维气凝胶的创制及其在有机废水处理方面的应用研究 (No. TGF-21-A10, 2021.01-2021.12, 主持)

◆ 发明专利:

- [1] 张鹏, 杨晓燕, 李静茹, 王佳任, 尹良科, 一种过渡金属原位掺杂 TiO₂ 催化剂、制备方法及应用 (专利号: ZL202110410323.8)
- [2] 张鹏, 王佳任, 迟铭铭, 刘长华, 树脂衍生碳负载的金属-金属硫化物异质结颗粒催化剂、制备方法及应用 (专利号: 2023103564895)
- [3] 张鹏, 李泊翰, 尹良科, 王佳任, 迟铭铭, 三维整体型纤维状多孔碳材料、制备方法及应用 (专利号: 202111372963.0)
- [4] 桂建舟, 张鹏, 刘丹, 刘成伟, 马爱静, 潘世光, 一种棉碳纤维整体型催化剂及其制备方法和应用 (专利号: 202010040657.6)

◆ 代表性学术论文:

2024

- [1] Peng Zhang, Changhua Liu, Xiaoyan Yang*, Mingming Chi, Lei Zhang, Yue Han, Weiwei Zhang, Shiwen Du*, and Shaomin Liu*, Single-Atom Cu-Doped TiO₂ Nanorods with Modulated Surface Active Sites for Superior Photocatalytic Performance, *J. Catal.*, 2024, 430, 115321.
- [2] Peng Zhang, Lei Zhang, Xiaoyan Yang*, Mingming Chi, Yue Han, Zehao Zhang, Changhua Liu, Wubo Wan, and Xiaoming Zhao*, Cotton-derived three-dimensional carbon fiber aerogel with hollow nanocapsules and ultrahigh adsorption efficiency in dynamic sewage treatment system, *Bioresour. Technol.*, 2024, 399, 130563.
- [3] Jian Gao, Lingxin Meng, Na Ma*, Xiaoyao Tan, Yuan Li, Hong Wang, and Peng Zhang*, Core/shell Ni@C particle-supported N-doped carbon with hollow capsules for efficient electrocatalytic reduction of oxygen, *Int. J. Hydrogen Energy*, 2024, 82, 343-352.
- [4] Yue Han, Peng Zhang*, and Xiaoming Zhao*, Research progress of three-dimensional monolithic carbon-based materials with high photothermal conversion efficiency for solar vapor generation, *New Carbon Mater.*, 2024, 39, 240-253.
- [5] Jian Gao, Xinyao Wang, Lingxin Meng, Zhen Yin, Na Ma*, Xiaoyao Tan, and Peng Zhang*, A carbon material doped with both porous FeO_x and N as an efficient catalyst for oxygen reduction reactions, *New Carbon Mater.*, 2024, 39, 1202-1212.

2023

- [1] Peng Zhang, Liangke Yin, Xiaoyan Yang*, Jiaren Wang, Mingming Chi, and Jieshan Qiu*, Cotton-derived 3D carbon fiber aerogel to in situ support Bi₂O₃ nanoparticles as a separation-free photocatalyst for antibiotic removal, *Carbon*,

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[2] Wubo Wan, Zhuang Yang, Tao Tan, Yu Li, Zehao Zhang, **Peng Zhang***, and Feng He*, Three-dimensional hydrophobic melamine@methyl trichlorosilane/polydimethylsiloxane sponge for consecutive and long-term oil/water separation, *Chem. Eng. J.*, 2023, 476, 146824.

[3] Sumin Lu, Liangke Yin, Chenglong Xin, Xiaoyan Yang*, Mingming Chi, Wubo Wan*, Yue Han, Lei Zhang, and **Peng Zhang***, Resin-derived carbon to in-situ support Cu-Cu_{2-x}S heteroparticles for efficient photocatalytic reduction of Cr(VI), *Mol. Catal.*, 2023, 542, 113137.

[4] Wubo Wan, Yu Li, Shiwei Bai, Xiaoyan Yang*, Mingming Chi, Yaqin Shi, Changhua Liu, and **Peng Zhang***, Three-Dimensional Porous ZnO-Supported Carbon Fiber Aerogel with Synergistic Effects of Adsorption and Photocatalysis for Organics Removal, *Sustainability*, 2023, 15, 13088.

2022

[1] **Peng Zhang**, Xiaoyan Yang*, Shiwen Du, Liangke Yin, Jiaren Wang, Peng Liu and Wenhua Hou*, Insight into the Crystal Facet Effect of {101} and {100} Facets of CeVO₄ in the Photochemical Property and Photocatalysis, *J. Phys. Chem. Lett.*, 2022, 13, 10432-10438.

[2] Xiaoyan Yang, Jiaren Wang, Yunbao Wei, Bohan Li, Wenjun Yan, Liangke Yin, Dongqing Wu, Peng Liu and **Peng Zhang***, Cotton-Derived Carbon Fiber-Supported Ni Nanoparticles as Nanoislands to Anchor Single-Atom Pt for Efficient Catalytic Reduction of 4-Nitrophenol, *Appl. Catal. A Gen.*, 2022, 643, 118734.

2021

[1] Wubo Wan, Xiaoyan Yang*, Minghao Du, Yaqin Shi, Jiaren Wang, Lijuan Wang, Yaoxian Chin, Haihui Liu, and **Peng Zhang***, One-dimensional Ternary Ag@Ag₂S@C Nanocable with Plasmon-Enhanced Photocatalytic Performance, *Mol. Catal.*, 2021, 505, 111531.

2020

[1] Xiaoyan Yang, Yonglin Wang, Na He, Wubo Wan, Fuli Zhang, Bin Zhai*, and **Peng Zhang***, One-Step Hydrothermal Synthesis of Hierarchical Nanosheet-Assembled Bi₂O₂CO₃ Microflowers with a {001} Dominant Facet and Their Superior Photocatalytic Performance, *Nanotechnology*, 2020, 31, 375604.

2019

[1] **Peng Zhang**, Xiaoyan Yang, Zhouzheng Jin, Jianzhou Gui*, Rui Tan, and Jieshan Qiu*, Insight into The Impact of Surface Hydrothermal Carbon Layer on

Photocatalytic Performance of ZnO Nanowire, *Appl. Catal. A Gen.*, 2019, 583, 117145.

2018

[1] Xiaoyan Yang, Yi Li, **Peng Zhang***, Rongmei Zhou, Hailong Peng, Dan Liu*, and Jianzhou Gui*, Photoinduced In-Situ Deposition of Uniform and Well-Dispersed PtO₂ Nanoparticles on ZnO Nanorods for Efficient Catalytic Reduction of 4-Nitrophenol, *ACS Appl. Mater. Interfaces*, 2018, 10, 23154–23162.

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2017

[1] **Peng Zhang**, Xiaoyan Yang, Zongbin Zhao, Beibei Li, Jianzhou Gui*, Dan Liu, and Jieshan Qiu*, One-Step Synthesis of Flowerlike C/Fe₂O₃ Nanosheet Assembly with Superior Adsorption Capacity and Visible Light Photocatalytic Performance for Dye Removal, *Carbon*, 2017, 116, 59-67.

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[4] **Peng Zhang**, Xiaoyan Yang, Hailong Peng, Dan Liu*, Hui Lu, Junfu Wei, and Jianzhou Gui*, Magnetically Recoverable Hierarchical Pt/Fe₂O₃ Microflower: Superior Catalytic Activity and Stability for Reduction of 4-Nitrophenol, *Catal. Comm.*, 2017, 100, 214-218.

[5] **Peng Zhang**, Xiaotong Han, Han Hu, Jianzhou Gui*, Mingyu Li, and Jieshan Qiu*, In-Situ Growth of Highly Uniform and Single Crystalline Co₃O₄ Nanocubes on Graphene for Efficient Oxygen Evolution, *Catal. Comm.*, 2017, 88, 81–84.

2016 之前

[1] **Peng Zhang**, Zongbin Zhao, Boris Dyatkin, Chang Liu and Jieshan Qiu*, In-Situ Synthesis of Cotton-Derived Ni/C Catalysts with Controllable Structure and

Enhanced Catalytic Performance. *Green Chem.*, 2016, 18, 3594-3599.

[2] **Peng Zhang**, Chang Yu, Xiaoming Fan, Xiuna Wang, Zheng Ling, Zonghua Wang, and Jieshan Qiu*, Magnetically Recoverable Ni/C Catalysts with Hierarchical Structure and High-Stability for Selective Hydrogenation of Nitroarenes, *Phys. Chem. Chem. Phys.*, 2015, 17, 145–150. (highlighted as the back cover)

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