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教育背景

2005-2010无机化学博士，美国加州大学戴维斯分校，导师：Philip. P Power

2001-2004无机化学硕士，南京大学化学化工学院，导师：郑丽敏

1997-2001无机化学学士，南京大学化学化工学院

职业经历

2018-至今副院长，能源学院，苏州大学

2016-至今特聘教授，苏州大学

2013-2015高级研发员，美国哈利伯顿公司

2012-2013助理研究员，美国宾夕法尼亚材料工程系/美国国家标准技术局中子研究中心（NIST）

2010-2012博士后，美国马里兰大学化学生物化学系

研究方向

1、新型二维材料及其异质结构的设计、合成及其催化应用

2、三维金属有机框架材料的化学修饰与功能化

3、光、电催化二氧化碳资源化利用

个人荣誉及人才项目

2017年江苏省“双创人才”计划

2016年获国家人力资源和社会保障部“高层次留学人才回国”资助

2016年入选江苏省六大高峰人才计划

2015年获美国哈里伯顿技术创新奖

2014年度美国哈里伯顿MVP 奖（Maximum Value-Added Performance）

代表期刊论文

- Xiong, L.; Sun, Z.; Zhang, X.; Zhao, L.; Huang, P.; Chen, X.; Jin, H.; Sun, H.; Lian, Y.; Deng, Z.*; Rummerli, M. H.; Yin, W.*; Zhang, D.; Wang, S.; **Peng, Y.**. “Octal gold-silver nanoframes with rich crystalline defects for efficient methanol oxidation manifesting a CO-promoting effect”; *Nature Communications*, 10, 3782 (2019)
- Sun, H.; Min, Y.; Yang, W.; Lian, Y.; Lin, L.; Feng, K.; Deng, Z.*; Chen, M.; Zhong, J.; Xu, L.*; **Peng, Y.**. “Morphological and Electronic Tuning of Ni₂P through Iron 8892 (2019).
- Mu, Q.; Zhu, W.; Li, X.; Zhang, C.; Su, Y.; Lian, Y.; Qi, P.; Deng, Z.; Zhang, D.; Wang, S.; **Peng, Y.**. “Electrostatic Charge Transfer for Boosting the Photocatalytic CO
- Sun, H.; Li, Q.; Lian, Y.; Zhang, C.; Qi, P.; Mu, Q.; Jin, H.; Zhang, B.; Chen, M.; Deng Z.; **Peng, Y.**. “Highly Efficient Water Splitting Driven by Zinc-air Batteries with a Single Catalyst Incorporating Rich Active Species”; *Applied Catalysis B Environmental*, in press.
- Gu, Y.; Yan, G.; Lian, Y.; Qi, P.; Mu, Q.; Zhang, C.; Deng, Z.*; **Peng, Y.***. “Mn^{III}-enriched α -MnO₂ nanowires as efficient bifunctional oxygen catalysts for rechargeable Zn-air batteries”; *Energy Storage Materials*, in press.
- Yang, C.; Yao, Y.; Lian, Y.; Chen, Y.; Shah, R.; Zhao, X.*; Chen, M.; **Peng, Y.***; Deng, Z.* “A double-buffering strategy to boost the lithium storage of botryoid MnO_x/C anodes”; *Small*, 15 (16), 1900015 (2019).
- Qi, P.; Huang, Y.; Yao, Y.; Li, Q.; Lian, Y.; Lin, L.; Wang, X.; Gu, Y.; Li, L.; Deng, Z.*; **Peng, Y.***; Liu, Z. “Wax-assisted crackfree transfer of monolayer CVD graphene: Extending from standalone to supported copper substrates”; *Applied Surface Science*, 493, 81–86 (2019).
- Ma, Y.; Gu, Y.; Yao, Y.; Jin, H.; Zhao, X.; Yuan, X.; Lian, Y.; Qi, P.; Shah, R.; **Peng, Y.**; Deng, Z.* “Alkaliphilic Cu₂O nanowires on copper foam for hosting Li/Na as ultrastable alkali-metal anodes”; *Journal of Materials Chemistry A*, In press (2019).
- Abdul Razzaq, A.; Yao, Y.; Shah, R.; Qi, P.; Miao, L.; Chen, M.; Zhao, X.; **Peng, Y.**; Deng, Z*. “High-performance lithium sulfur batteries enabled by a synergy between sulfur and carbon nanotubes”; *Energy Storage Materials*, 16, 194-202 (2019).
- Xia, Z.; Sun, H.; He, X.; Sun, Z.; Lu, C.; Li, J.; **Peng, Y.***; Kostecki, R.; Dou, S.; Sun, J.*; Liu, Z. “In situ construction of CoSe₂@vertical-oriented graphene arrays as self-supporting electrodes for sodium ion capacitors and electrocatalytic oxygen evolution”; *Nano Energy*, 60, 385-392 (2019).
- Ma, B.; **Peng, Y.***; Ma, D.*; Deng, Z.; Lu, Z. “Boron-doped InSe monolayer as a promising electrocatalyst for nitrogen reduction into ammonia at ambient conditions”; *Applied Surface Science*, 495, 143463 (2019).
- Yao, Y.; Zhao, X.; Razzaq, A.; Gu, Y.; Yuan, X.; Shah, R.; Lian, Y.; Lei, J.; Mu, Q.; Ma, Y.; **Peng, Y.**; Deng, Z.*; Liu, Z. “Mosaic rGO layers on lithium metal anodes for the effective mediation of lithium plating and stripping”; *Journal of Materials Chemistry A*, 7, 12214-12224 (2019).
- Chen, Y.; Yuan, X.; Yang, C.; Lian, Y.; Razzaq, A. A.; Shah, R.; Guo, J.; Zhao, X.; **Peng, Y.**; Deng, Z*. “ γ -Fe₂O₃ nanoparticles embedded in porous carbon fibers as binder-free anodes for high-performance lithium and sodium ion batteries”; *Journal of Alloys and Compounds*, 777, 127-134 (2019).
- Lian, Y.; Sun, H.; Wang, X.; Qi, P.; Mu, Q.; Chen, Y.; Ye, J.; Zhao, X.; Deng, Z.*; **Peng, Y.*** “Carved nanoframes of cobalt–iron bimetal phosphide as a bifunctional electrocatalyst for efficient overall water splitting”; *Chemical Science*, 10, 464-474 (2019).
- Sun, H.; Lian, Y.; Yang, C.; Xiong, L.; Qi, P.; Mu, Q.; Zhao, X.; Guo, J.; Deng, Z.*; **Peng, Y.***. Hierarchical Nickel-Carbon Structure Templatized by Metal-Organic Frameworks for Efficient Overall Water Splitting; *Energy & Environmental Science*, 11, 2363 – 2371 (2018).
- Chen, Y.; Zhao, X.; Liu, Y.; Razzaq, A. A.; Haridas, A. K.; Cho, K.-K.; **Peng, Y.**; Deng, Z.*; Ahn, J.-H*. γ -Fe₂O₃ nanoparticles aligned in porous carbon nanofibers towards long life-span lithium ion batteries; *Electrochimica Acta*, 289, 264-271 (2018).
- Mu, Q.; Zhu, W.; Yan, G.; Lian, Y.; Yao, Y.; Li, Q.; Tian, Y.; Zhang, P.; Deng, Z.*; **Peng, Y.***. Activity and Selectivity Regulation through the Dimension of Cobalt Active Sites in Photocatalytic CO₂ Reduction; *Journal of Materials Chemistry A*, 6, 21110-21119 (2018).
- Shah, R.; Gu, J.-Y.; Razzaq, A. A.; Zhao, X.; Shen, X.-W.; Miao, L.; Yan, C.-L.; **Peng, Y.***; Deng, Z*. Freestanding Electrode Pairs with High Areal Density Fabricated under High Pressure and High Temperature for Flexible Lithium Ion Batteries; *ACS Applied Energy Materials*, 1, 3171-3179 (2018).
- Yan, G.; Lian, Y.; Gu, Y.; Yang, C.; Sun, H.; Mu, Q.; Li, Q.; Zhu, W.; Zheng, X.; Chen, M.; Zhu, J.; Deng, Z.*; **Peng, Y.***. Phase and Morphology Transformation of MnO₂ Induced by Ionic Liquids toward Efficient Water Oxidation; *ACS Catalysis*, 8, 10137-10147 (2018).
- Zhu, W.; Zhang, C.; Li, Q.; Xiong, L.; Chen, R.; Wan, X.; Wang, Z.; Chen, W.; Deng, Z.*; **Peng, Y.***. Selective reduction of CO₂ by conductive MOF nanosheets as an efficient co-catalyst under visible light illumination; *Applied Catalysis B: Environmental*, 238, 339-345 (2018).
- Shao, Q.; Wang, Y.; Yang, S.; Lu, K.; Zhang, Y.; Tang, C.; Song, J.; Feng, Y.; Xiong, L.; **Peng, Y.**; Li, Y.; Xin, H.; Huang, X.; “Stabilizing and Activating Metastable Nickel Nanocrystals for Highly Efficient Hydrogen Evolution Electrocatalysis”; *ACS Nano*, 12, 11625-11631 (2018)
- Gu, J.; Yan, G.; Lian, Y.; Mu, Q.; Jin, H.; Zhang, Z.; Deng, Z.; **Peng, Y.***. Bandgap engineering of a lead-free defect perovskite Cs₃Bi₂I₉ through trivalent doping of Ru³⁺; *RSC Advances*, 8, 25802-25807 (2018).
- Peng, Y.***; Krunglevicite, V.; Eryazici, I.; Hupp, J. T.; Farha, O. M .; Yildirim T . “Methane Storage in Metal-Organic Frameworks: Current Records, Surprise Findings, and Challenges”; *J. Am. Chem. Soc.*, 135, 11887-11894 (2013).
- Peng, Y.***; Srinivas, G.; Wilmer, C. E.; Snurr, R. Q.; Hupp, J. T.; Yildirim T .; Farha, O. M . “Simultaneously High Gravimetric and Volumetric Methane Uptake Characteristics of the Metal-Organic Framework NU-111”; *Chem. Commun.*, 49, 2992-2994 (2013).
- Peng, Y.***; Ellis, B. D.; Wang, X.; Fettinger, J. C.; Power, P. P . “Reversible Reaction of Ethylene with Distannynes under Ambient Conditions”; *Science*, 325, 1668-1670 (2009).
- Peng, Y.***; Guo, J. D.; Ellis, B. D.; Zhu, Z.; Fettinger, J. C.; Nagase, S.; Power, P. P . “Reaction of Hydrogen or Ammonia with Unsaturated Germanium or Tin Molecules under Ambient Conditions: Oxidative Addition versus Arene Elimination”; *J. Am. Chem. Soc.*, 131, 16272-16282 (2009).
- Peng, Y.***; Ellis, B. D.; Wang, X.; Power, P. P . “Diarylstannylene Activation of Hydrogen or Ammonia with Arene Elimination”; *J. Am. Chem. Soc.*, 130, 12268-12269 (2008).

