Shengwen Liu

Email: shengwen.liu@rutgers.edu

swliu16@gmail.om

Education:

2010.9--2016.1 PhD in Materials Physics and Chemistry, Institute of Solid State Physics, Chinese Academy of Sciences (CAS)
Advisor: Prof. Cai Weiping and Zhao huijun

2006.9--2010.7 BS in Materials Science and Engineering, Nanchang University

Research Interests

(1) Carbon-based hybrids for energy conversion and storage applications,
(2) Ultrathin 2D nanosheets, including graphene, 2D MOFs, metal dichalcogenide,
(3) Electrocatalysis: ORR, OER and HER,
(4) Energy storage: metal-air battery, supercapacitors, fuel cell, capacitive desalination,
(5) Nonamaterials applied in environmental monitoring, pollutants removal, wastewater treatment.

Publications

1. **Liu, S**.; Zhao, Q.; Tong, M.; Zhu, X.; Wang, G.; Cai, W.; Zhang, H.; Zhao, H. Ultrafine nickel-cobalt alloy nanoparticles incorporated into three-dimensional porous graphitic carbon as electrode material for supercapacitor. ***Journal of Materials Chemistry A,*** 2016

2. **Liu, S.;** Zhang, H.; Liu, R.; Zhang, H.; and Wang, G. Bifunctional metal-organic frameworks derived nitrogen-doped porous carbon@graphene electrocatalyst for oxygen reduction and evolution reactions. ***Carbon,*** 2016, *106*, 74

3. **Liu, S**.; Kang, S.; Wang, H.; Wang, G.; Zhao, H., Cai, W., Nanosheets-built flowerlike micro/nanostructured $Bi_2O_{2.33}$ and its highly efficient adsorption performances to iodine. ***Chemical Engineering Journal*** 2016*, 289,* 219.

4. Zhang, H.*; **Liu, S**.*; Zang, Y.; Liu, R.; Liu G.; Zhang, Y.; Zhang, H.; Zhao, H. Co/Co_9S_8@S,N-doped porous graphene sheets derived from S, N Dual organic ligands assembled Co-MOFs as superior electrocatalysts for full water splitting in alkaline media. ***Nano Energy,*** *2016*

5. **Liu, S**.; Qin, N.; Song, J.; Zhang, Y.; Cai, W.; Zhang, H.; Wang, G.; Zhao, H., A nanoparticulate liquid binding phase based DGT device for aquatic arsenic measurement. ***Talanta,*** 2016, *160*, 225.

6. **Liu, S**.; Tong, M.; Liu, G.; Zhang, X.; Wang, Z.; Wang, G.; Cai, W.; Zhang, H.; Zhao, H., S, N-Containing Co-MOF derived Co_9S_8@S,N-doped carbon materials as efficient oxygen electrocatalysts and supercapacitor electrode materials. ***Inorganic Chemistry Frontiers*** 2017**,**

4, 491-498.

7. **Liu, S**.; Kang, S.; Wang, G.; Zhao, H.; Cai, W., Micro/nanostructured porous Fe–Ni binary oxide and its enhanced arsenic adsorption performances. ***Journal of Colloid and Interface Science*** 2015, *458*, 94.

8. **Liu,S**.; Wang, X.; Zhao, H.; Cai, W., Micro/nano-scaled carbon spheres based on hydrothermal carbonization of agarose. ***Colloids and Surfaces A: Physicochemical and Engineering Aspects*** 2015**,** *484*, 386.

9. Wang, X.; Zhan, C.; Ding, Y.; Ding, B.; Xu, Y.; **Liu, S**.; Dong, H., Dual-core Fe_2O_3@ Carbon Structure Derived from Hydrothermal Carbonization of Chitosan as a Highly Efficient Material for Selective Adsorption. ***ACS Sustainable Chemistry & Engineering*** 2016, *5* ,1457

10. Zang,Y.; Zhang,H.; Zhang,X.; Liu, R.***;*** **Liu S**.; Wang, G.; Zhang Y.; Zhao. H.; Fe/F_{e2O3} nanoparticles anchored on Fe-N-doped carbon nanosheets as bifunctional oxygen electrocatalysts for rechargeable zinc-air batterie***s, Nano Research,*** 2016, *9*, 2123

11. Zhang, X.; Liu, R.; Zang, Y.; Liu, G.; **Liu S**.; Wang, G.; Y. Zhang.; H. Zhang.; H. Zhao, Shrimp-shell derived carbon nanodots as precursors to fabricate Fe,N-doped porous graphitic carbon electrocatalysts for efficient oxygen reduction in zinc-air batteries. ***Inorganic Chemistry Frontiers***, 2016, *3*, 910

12. Liu, R.; Zhang, H.; **Liu, S**.; Zhang, X.; Wu, T.; Ge, X.; Zang, Y.; Zhao, H.; and Wang, G.; shrimp-shell derived carbon nanodots as carbon and nitrogen source to fabricate three-dimensional N-doped porous carbon electrocatalyst for oxygen reduction reaction. ***Physical Chemistry Chemical Physics*** 2016, *18*, 4095.

13. Kang, S.; **Liu,S**.; Wang, H.; Cai, W., Enhanced degradation performances of plate-like micro/nanostructured zero valent iron to DDT. ***Journal of Hazardous Materials*** 2016, *307*, 145.

14. Wang, X.; Cai, W.; **Liu, S**.; Wang, G.; Wu, Z.; Zhao, H., ZnO hollow microspheres with exposed porous nanosheets surface: Structurally enhanced adsorption towards heavy metal ions. ***Colloids and Surfaces A: Physicochemical and Engineering Aspects*** 2013, *422*, 199.

Skills

X-ray Diffraction (XRD), Scanning electron microscope (SEM), Raman spectroscopy, FT-IR spectroscopy, X-ray Photoelectron Spectroscopy (XPS), cyclic voltammetry (CV), UV-Visible