

PERSONAL:

Name: **Kuaibing Wang**
Department: Department of Chemistry, College of Sciences
Gender: Male
Degree: Ph.D.
Title: Associate Professor
Major: Inorganic Chemistry
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RESEARCH INTERESTS:

Inorganic Materials Synthesis;

1. Design, synthesis and properties of crystalline metal-organic frameworks (MOFs)
 - 1) Novel structure, including nano-sized MOFs;
 - 2) Electrochemical properties, including electrocatalysis, supercapacitors and Li-ions batteries;
 - 3) Potential biological properties.
2. Electrochemical performance of conductive MOFs

Other:

- 1) Metal oxides synthesized from inorganic methods;
- 2) Design and study of MOFs-derived metal or metal oxides materials.

PROFESSIONAL EXPERIENCE:

2017-present Associate professor, College of Sciences, Nanjing Agricultural University

2013-2016 Lecturer, College of Sciences, Nanjing Agricultural University

HONORS AND AWARDS:

2014 "Excellent comprehensive evaluation of teaching quality" (NAU)

2015 Second prize in the young teachers teaching competition (NAU)

2015 Guiding undergraduate won the second prize for his excellent graduation thesis (NAU)

TEACHING:

- 《Inorganic and Analytical Chemistry》
- 《Inorganic Synthesis》
- Take responsibility for several key courses of Nanjing Agricultural University, such as Inorganic and Analytical Chemistry Experiment; Inorganic and Analytical Chemistry (online course, partly participated).
- Edited Books: 《General Chemistry》 (Beijing Forestry University, partly participated)
- Take responsibility for several SRT projects and have supervised several undergraduate students to complete their graduation dissertations.

RESEARCH PROJECTS:

(3) Design, synthesis and energy storage of 2D conductive MOFs with square

lattice(Foundation Research Project of Jiangsu Province, 2018.07~2020.6, in process)

- (2) Synthesis and performance study of core-shell supercapacitor electrode materials with multi-level carbon shells (Fundamental Research Funds for the Central Universities, KYZ201540, 2015.01~2017.12, done)
- (1) Co-Ni bimetal oxides electrode materials constructed from coordination polymer particles and their supercapacitive performance study (Open fund granted by State Key Laboratory of Coordination Chemistry, Nanjing University, 2015.02~2017.1, done)

PUBLICATIONS:

- (1) **Kuaibing Wang**, Zikai Wang, Xin Wang, Xueqin Zhou, Yuehong Tao, and Hua Wu*. Flexible long-chain-linker constructed Ni-based metal-organic frameworks with 1D helical channel and their pseudo-capacitor behavior studies. *J. Power Sources*, **2018**, 377, 44-51.
- (2) **Kuaibing Wang**, Xiaoran Cao, Saier Wang, Wenjia Zhao, JiangyanXu, Zikai Wang, and Hua Wu*. Interpenetrated and polythreadedCoII-organic framework as a supercapacitor electrode material with ultrahigh capacity and excellent energy delivery efficiency. *ACS Appl. Mater. Interfaces*, **2018**, 10, 9104-9115.
- (3) **Kuaibing Wang**, Lei Guo, Qianqian Wei, Huijian Wang, Aimin Lu, Mingbo Zheng, and Bo Lv*. Cu²⁺-Induced length change of Ni-based coordination polymer nanorods and research on NiO-based hybrid pseudocapacitor electrodes. *New J. Chem.*, **2018**,42, 9876-9885.
- (4) **Kuaibing Wang***, Xurong Yi, XufeiLuo, Ying Shi, and JiangyanXu. Fabrication of Co₃O₄pseudocapacitor electrodes from nanoscale cobalt-organic frameworks. *Polyhedron*, **2016**, 109, 26-32.
- (5) **Kuaibing Wang***, Bing Jin, Aimin Lu, XuefeiLuo, and Ying Shi. Porous nickel oxide pseudo-capacitive materials fabricated by Ni-Schiffbase nanostructures template. *Polyhedron*, **2016**, 117, 117-125.
- (6) **Kuaibing Wang***, JiangyanXu, Aimin Lu, Ying Shi and ZixiaLin.Coordination polymer template synthesis of hierarchical MnCo₂O_{4.5} and MnNi₆O₈ nanoparticles for electrochemical capacitors electrode. *Solid State Sci.*,**2016**, 58, 70-79.
- (7) **Kuaibing Wang***, Zhiyang Zhang, Xiaobo Shi, Hongju Wang, Yanan Lu, and Xiaoyan Ma. Soft-template-synthesisofhollowCuO/Co₃O₄ composites for pseudo-capacitiveelectrode:Asynergeticeffect on electrochemicalperformance. *J. Solid State Chem.*, **2016**, 244, 75-83.
- (8) **Kuaibing Wang***, Zhiyang Zhang, Xiaobo Shi, Hongju Wang, Yanan Lu, and Xiaoyan Ma. Temperature-dependent self-assembly of NiO/Co₃O₄ composites for supercapacitor electrodes with good cycling performance: from nanoparticles to nanorod arrays. *RSC Adv.*, **2015**, 5(3), 1943–1948.
- (9) **Kuaibing Wang***,Xiaobo Shi, Aiming Lu, Xiaoyan Ma, Zhiyang Zhang,Yanan Lu, and Hongju Wang. High nitrogen-doped carbon/Mn₃O₄ hybridssynthesized from nitrogen-rich coordinationpolymer particles as supercapacitor electrodes. *Dalton. Trans.*, **2015**, 44(1), 151–157.
- (10) **Kuaibing Wang***, MingboZheng, Xiaobo Shi, Zixia Lin, Hongju Wang, and Yanan Lu, Glucose-ethanol-assisted synthesis of amorphous CoO@Ccore-shell composites for electrochemical capacitors electrode. *Chem. Eng. J.*,**2015**, 266, 141–147.
- (11) ZhihuiXu, Bo Lv, Xiaobo Shi, Lixian Chen, and **Kuaibing Wang***, Chemical transformation

- of hollow coordination polymer particles to Co_3O_4 nanostructures and their pseudo-capacitive behaviors. *Inorg. Chim. Acta*, **2015**, 427, 266–272.
- (12) **Kuaibing Wang***, Xiaobo Shi, Zhiyang Zhang, Xiaoyan Ma, Yanan Lu, and Hongju Wang. Size-dependent capacitance of NiO nanoparticles synthesized from Ni-based coordination polymer precursors with different crystallinity. *J. Alloy. Compd.*, **2015**, 632, 361–367.
- (13) Bo Lv, Xiaobo Shi, Xiaoyan Ma, Zhiyang Zhang, and **Kuaibing Wang***. Controllable fabrication of multifunctional 1D Ag-based coordination polymer@PVP nanowires. *New. J. Chem.*, **2015**, 39 (1), 349–354.
- (14) **Kuaibing Wang**, Xiaoyan Ma, Zhiyang Zhang, MingboZheng, ZhirongGeng, and Zhilin Wang*. Indirect transformation of coordination-polymer particles into magnetic carbon-coated Mn_3O_4 ($\text{Mn}_3\text{O}_4@\text{C}$) nanowires for supercapacitor electrodes with good cycling performance. *Chem. Eur. J.*, **2013**, 19(22), 7084–7089.
- (15) **Kuaibing Wang**, ZhirongGeng, MingboZheng, Luyao, Ma, Xiaoyan Ma, and Zhilin Wang*. Controllable fabrication of coordination polymer particles (CPPs): a bridge between versatile organic building blocks and porous copper-based inorganic materials. *Cryst. Growth Des.*, **2012**, 12(11), 5606–5414.
- (16) **Kuaibing Wang**, Xiaoyan Ma, Dalin Shao, ZhirongGeng, Zhiyang Zhang, and Zhilin Wang*. Coordination-induced assembly of coordination polymer submicrospheres: promising antibacterial and in vitro anticancer activities. *Cryst. Growth Des.*, **2012**, 12(7), 3786–3791.
- (17) **Kuaibing Wang**, Yuxin Yin, Chengying Li, ZhirongGeng, and Zhilin Wang*. Facile synthesis of zinc(II)-carboxylate coordination polymer particles and their luminescent, biocompatible and antibacterial properties. *CrystEngComm*, **2011**, 13(20), 6231–6236.
- (18) **Kuaibing Wang**, ZhirongGeng, Yuxin Yin, Xiaoyan Ma, and Zhilin Wang*. Morphology effect on the luminescent property and antibacterial activity of coordination polymer particles with identical crystal structures. *CrystEngComm*, **2011**, 13(16), 5100–5104.