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个人简介

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中南大学材料科学与工程学院，副教授，博士生导师。

2004年7月于中科院过程工程研究所攻读化学工艺博士学位。2004-2005年在厦门大学化工系从事教学科研工作，2005年6月进入中南大学材料科学与工程学院从事教学科研工作。2010年12月至2011年12月由国家公派留学基金资助，在加拿大英属哥伦比亚大学(UBC)材料系从事访问学者工作1年。

长期从事锂电池材料、功能陶瓷材料及表面处理方面的研发工作，近几年主持和完成国家发改委项目、教育部博士点（新教师）基金、中国博士后基金（特等）、湖南省自然科学基金、湖南省科技计划重点项目、长沙市科技计划和企业项目等20余项，参与完成国家自然科学基金和国防科工委

项目多项。在国内外核心期刊上发表学术论文80余篇，被SCI他引240余次。申请国家发明专利20余项，其中获授权15项。

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科研方向

1. 新型锂离子电池材料的制备、表征及产业化
2. 各种MOF材料的合成，衍生转化及其在储能中的应用
3. Na,K,Zn离子电池的研发
4. 材料表面多功能涂层的设计、制备及性能
5. 新型多孔陶瓷/金属复合材料的制备及性能
6. 铝空、镁空等新型电池材料的开发

讲授课程

- 1、有色金属熔炼与铸锭
- 2、金属腐蚀与防护
- 3、电子信息材料
- 4、环境与材料

学术成果

发表论文目录

2019年

1. Chengjie Yin, Hongming Zhou*, Jian Li*. Influence of doped anions on PEDOT/Ni-Co-Mn-O for supercapacitor electrode

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1. Chengjie Yin (<https://pubs.acs.org/author/Yin,+Chengjie>), Hongming Zhou (<https://pubs.acs.org/author/Zhou,+Hongming>)*, Zhaohui Yang (<https://pubs.acs.org/author/Yang,+Zhaohui>), Jian Li (<https://pubs.acs.org/author/Li,+Jian>)*. Synthesis and Electrochemical Properties of LiNi_{0.5}Mn_{1.5}O₄ for Li-Ion Batteries by the Metal-Organic Framework Method, ACS Appl. Mater. Interfaces 2018, 10, 13625-13634.

2. Hongming Zhou, Demin Xiao, Chengjie Yin, Zhaohui Yang, Kaiwen Xiao, Jian Li*. Enhanced performance of the electrolytes based on sulfolane and lithium difluoro(oxalate)borate with enhanced interfacial stability for LiNi_{0.5}Mn_{1.5}O₄ cathode, Journal of Electroanalytical Chemistry 808 (2018) 293–30.

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- of $\text{LiNi}_0.8\text{Co}_0.15\text{Al}_0.05\text{O}_2$ cathode, *Journal of Materials Science: Materials in Electronics* (2018) 29:6648–6659.
5. Lihua Wang, Jian Li, Hongming Zhou*, Zuqiong Huang, Shengdong Tao, Bingkun Zhai, Liangqin Liu, Leshan Hu. Regeneration cathode material mixture from spent lithium iron phosphate batteries, *Journal of Materials Science: Materials in Electronics* (2018) 29:9283–9290.
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7. Hongming Zhou, Zhaohui Yang, Chengjie Yin, Shengliang Yang, Jian Li*, Fabrication of nanoplate Li-rich cathode material via surfactant-assisted hydrothermal method for lithium-ions batteries. *Ceramics International*, 2018, 44, 20514-20523.
8. Zhou Hong-ming, Xiao Kai-wen, LI Jian*, Xiao De-min, Jiang Yi-xiong. Synthesis of lithium difluoro(oxalate)borate (LiODFB), phase diagram and ions coordination of LiODFB in dimethyl carbonate. *J. Cent. South Univ.* (2018) 25: 550–560.
9. Jian Li, Wen-Wen Liu, Hong-Ming Zhou*, Zhong-Zhong Liu, Bao-Rong Chen, Wen-Jiao Sun. Anode material NbO for Li-ion battery and its electrochemical properties, *are Met.* (2018) 37(2):118–122.
10. Li Jian, Leshan Hu, Hongming Zhou*, Regenerating of $\text{LiNi}_0.5\text{Co}_0.2\text{Mn}_0.3\text{O}_2$ cathode materials from spent Lithium-ion batteries, *Journal of materials science: materials in electronics* (2018) 29: 17661-17669.

11. Hongming Zhou, Xiuxiu Zhao, Chengjie Yin, Jian Li*, regenerating of $\text{LiNi}_0.5\text{Co}_0.2\text{Mn}_0.3\text{O}_2$ cathode materials from spent lithium-ion batteries, *Electrochimica Acta*, (2018) 291: 142-150.

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1. Zuqiong Huang, Jian Li, Jianjun Yao, Hongming Zhou*, Yuming Huang, Lihua Wang, Feng Zheng. Characterization of CNT-pyrolytic C-layer-coated Al foil: interfacial structures, reactions, and performances, *Appl. Phys. A* (2017) 123:687.

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1. Zhou, Hongming, Xiao, Kaiwen, Li Jian, Lithium difluoro(oxalate)borate and LiBF_4 blend salts electrolyte for $\text{LiNi}_0.5\text{Mn}_1.5\text{O}_4$ cathode material, *Journal of Power Sources*, 2016, 302: 274-282.

2. LI Jian, CHEN Bao-Rong, ZHOU Hong-Ming*. Effects of Washing and Heat-treatment on Structure and Electrochemical Charge/Discharge Property for $\text{LiNi}_0.8\text{Co}_0.15\text{Al}_0.05\text{O}_2$ Powder[J]. *Journal of Inorganic Materials*, 2016, 31(7): 773-778.

2015年

1. Zhou Hong-ming#, Sun Wen-jiao, Li Jian*, Preparation of spiro-type quaternary ammonium salt via economical and efficient synthetic route as electrolyte for electric double-layer capacitor, *Journal of Central South University*, 2015, 22(7): 2435-2439.
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3. ZHOU Hongming, YI Danqing. Effect of rare earth doping on thermo-physical properties of lanthanum zirconate ceramic for thermal barrier coatings. *Journal of Rare Earths*, 2008, 26(6): 770-774.
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