

## 山东交通学院硕士研究生导师简介表

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出生年月	1990.05	职 称	副教授	
学历、学位	研究生、博士	所在单位	汽车工程学院	
学科专业	交通运输			
研究方向	新能源汽车动力电池关键材料开发、动力电池综合性能评价及检测诊断			
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个人简历 学术成果简介	<p><b>个人简介：</b> 褚瑞霞，工学博士，学术副教授，能源与动力工程系教师，济南市高层次人才，汽车动力系统智能检测及高端装备山东省工程研究中心秘书，山东省科技科创大赛金牌指导教师、山东省大学生课外学术科技作品竞赛优秀指导教师。近三年，主持动力电池关键技术研究课题3项，其中山东省重点研发计划项目1项、横向课题1项；作为核心成员参与山东省自然科学基金面上项目、山东省交通科技创新计划项目、省级创新基地项目等。在国际刊物《Nanoscale》、《Journal of Alloys and Compounds》、《Measurement》等上以第一作者或通讯作者发表SCI/EI论文8篇，授权发明专利10余项。指导学生获第九届山东省大学生科技创新大赛一等奖（最高奖）、第十九届“挑战杯”山东省大学生课外学术科技作品竞赛特等奖（最高奖）。</p> <p><b>目前从事科学研究工作：</b></p> <ol style="list-style-type: none"> <li>1. 主持：山东省重点研发计划-科技型中小企业创新能力提升项目，新能源汽车动力电池快速检测评价系统开发及应用</li> <li>2. 主持：横向课题，动力电池高性能 NCM622-C 复合正极制备工艺综合评价研究</li> <li>3. 参与：山东省自然科学基金面上项目，基于智能网联汽车台试的路阻反馈研究</li> <li>4. 参与：山东省交通科技创新计划项目，电动汽车快速检测技术及标准研究</li> <li>5. 参与：省级创新基地项目：汽车动力系统智能检测及高端装备山东省工程研究中心</li> </ol> <p><b>发表代表性论文或专利：</b></p> <ol style="list-style-type: none"> <li>1. <b>Ruixia Chu</b>, Hongtao Zhang, Wanyou Huang, et al. Performance of 3D network-structured <math>\text{LiFePO}_4@\text{Li}_3\text{V}_2(\text{PO}_4)_3/\text{carbon}</math> nanofibers via coaxial electrospinning as self-supporting cathode for lithium-ion batteries[J]. Materials, 2025, 18(9): 1969.</li> <li>2. <b>Ruixia Chu</b>, Hongtao Zhang, Fangyuan Qiu, et al. Facile synthesis of non-noble CuFeCo/C catalysts with high stability for ORR in PEMFC[J].</li> </ol>			

- Materials, 2025, 18(12): 2826.
3. Wanyou Huang, Shiwei Tan, **Ruixia Chu\***, et al. Research on the friction loss of a loading brake tester with adjusted shaft distance[J]. Machines, 2025, 13(3): 170.
  4. Wanyou Huang, Xiaoyue Jin, **Ruixia Chu\***, et al. Research on the self-proposed rapid detection method for capacity degradation of electric vehicle power batteries based on vehicle rapid detection working condition[J]. Measurement, 2025, 253, Part C: 117640.
  5. Wanyou Huang, Dongying Liu, **Ruixia Chu\***, et al. Analysis of resistance influencing factors of a bench system based on a self-developed four-wheel drive motor vehicle chassis dynamometer[J]. Machines, 2024, 12(8): 580.
  6. **Ruixia Chu**, Wanyou Huang, Jun Yang, et al. A self-supporting Cu<sub>2</sub>S/CP lithium-ion battery anode. Journal of Physics: Conference Series, Volume 2563, 012006, 2023 3rd International Conference on Energy Engineering, New Energy Materials and Devices (NEMD 2023) 24/03/2023-26/03/2023 Guangzhou, China. 10.1088/1742-6596/2563/1/012006.
  7. **Ruixia Chu**, Shiwei Tan, Yi Qiao, et al. A carbonized coconut husk for supercapacitor electrode. Journal of Physics: Conference Series, Volume 2563, 012031, 2023 3rd International Conference on Energy Engineering, New Energy Materials and Devices (NEMD 2023) 24/03/2023-26/03/2023 Guangzhou, China. 10.1088/1742-6596/2563/1/012031.
  8. **Ruixia Chu**, Yujian Zou, Peidong Zhu, et al. Progress of single-crystal nickel-cobalt-manganese cathode research[J]. Energies, 2022, 15(23): 9235.
  9. **Ruixia Chu**, Donggui Tan, Jie Zhang, et al. Long-term cycling core-shell Fe<sub>3</sub>O<sub>4</sub>-polypyrrole composites via diffusive and capacitive lithiation[J]. Journal of Alloys and Compounds, 2020, 835: 155192.
  10. Xin Chen, Jie Lin, Yanli Chen, Jie Zhang, Heng Jiang, Fangyuan Qiu, **Ruixia Chu\***, Hang Guo\*. Binder-free and self-supported reduced graphene oxide coated Cu<sub>2</sub>SnS<sub>3</sub>/carbon nanofibers for superior lithium storage[J]. Journal of Alloys and Compounds, 2020, 842: 155619.
  11. **Ruixia Chu**, Jie Lin, Changqing Wu, et al. Reduced graphene oxide coated porous carbon-sulfur nanofiber as flexible paper electrode for lithium-sulfur battery[J]. Nanoscale, 2017, 9(26): 9129-9138.
  12. Jie Zhang, **Ruixia Chu**, Yanli Chen, et al. Porous carbon encapsulated Mn<sub>3</sub>O<sub>4</sub> for stable lithium storage and its ex-situ XPS study. Electrochimica Acta, 2019, 319: 518-526.
  13. Jie Zhang, **Ruixia Chu**, Yanli Chen, et al. Binder-free C@NiCo<sub>2</sub>O<sub>4</sub> on Ni foam with ultra-stable pseudocapacitive lithium ion storage. Nanotechnology, 2019, 30: 125402-12410.
  14. Jie Zhang, **Ruixia Chu**, Yanli Chen, et al. In-situ grown hierarchical ZnCo<sub>2</sub>O<sub>4</sub> nanosheets on nickel foam as binder-free anode for lithium ion

batteries. *Ceramics International*, 2018, 44(14): 16219-16226.

15. 发明专利：Preparation method of reduced graphene oxide-coated porous carbon/sulfur composite fiber film, 2022/13722.