网站个人信息

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| 姓 名 | 胡小武 | 性 别 | 男 |  | |
| 国 籍 | 中国 | 学 位 | 博士 |
| 所学专业 | 材料科学与工程 | 毕业院校 | 西北工业大学 |
| 职 称 | 教授 | 职称类别 | 正高级 | 导师类别 | 博导 |
| 电子邮件 | huxiaowu@ncu.edu.cn | 所在单位 | 先进制造学院 | | |
| 个人信息 | 博士，教授，博士生导师，入选江西省井冈学者及主要学科学术和技术带头人（青年），江西省杰出青年基金获得者，兼任江西钨业控股集团有限公司外部董事。《中国有色金属学报》（中、英文版）、《焊接学报》及《有色金属科学与工程》等期刊青年编委。取得西北工业大学材料加工工程博士学位，美国西北大学机械工程系访问学者。长期从事电子器件封装互连、相变储热材料制备及其热管理的研究。主持国家自然科学基金4项。以第一作者（或通讯作者）发表学术论文120余篇，SCI收录110余篇，他引3000余次，授权国家发明专利6项，成果获江西省自然科学二等奖。 | | | | |
| 教育经历 | 2007.09-2010.06 西北工业大学 博士  2004.09-2007.06 西北工业大学 硕士  2000.09-2004.06 兰州理工大学 学士 | | | | |
| 工作履历 | 2018.12-至今 南昌大学 教授  2015.8-2016.8 美国西北大学 访问学者  2013.12-2018.11 南昌大学 副教授  2010.07-2013.11 南昌大学 讲师 | | | | |
| 科研项目 | 1. 复合助焊剂与声场协同作用下锡焊点连接机理及剪切性能研究，国家自然科学基金，2024-01-01 至 2027-12-31  2. 温度梯度诱导锡焊点界面化合物定向生长及其剪切性能研究，国家自然科学基金，2022-01-01 至 2025-12-31  3. 非均质双相基板锡焊点非均匀反应性润湿机制及其可靠性研究，国家自然科学基金，2018-01-01 至 2021-12-31  4. Ni-W-P/Cu双镀层无铅焊点界面微结构及其剪切失效行为，国家自然科学基金，2015-01-01 至 2018-12-31 | | | | |
| 科研成果 | (1) Guangyu Zhu, Minming Zou, Wenxing Luo, Yifan Huang, Wenjing Chen, Xiaowu Hu\*, Xiongxin Jiang, Qinglin Li. A polyurethane solid–solid phase change material for flexible use in thermal management. Chemical Engineering Journal, 2024, 488: 150930.  (2) Yifan Huang, Minming Zou, Wenjing Chen, Wenxing Luo, Xiaowu Hu\*, Guangyu Zhu, Sifan Tan, Xiongxin Jiang. A Novel Room-Temperature Flexible Phase Change Material for Solar Energy Photothermal Conversion and Battery Thermal Management. ACS Sustainable Chemistry & Engineering, 2024, 12, 4662-4675.  (3) Yichi Liu, Xiaowu Hu\*, Xiongxin Jiang, et al. Nano-silver@polydopamine carbonized melamine foam supported polyethylene glycol phase change materials: With simultaneous improved photo-thermal conversion ability. Solar Energy Materials and Solar Cells, 2024, 269: 112762.  (4) Yan Ma, Minming Zou, Wenjing Chen, Wenxing Luo, Xiaowu Hu\*, et al. A structured phase change material integrated by MXene/AgNWs modified dual-network and polyethylene glycol for energy storage and thermal management. Applied Energy, 2023, 349: 121658.  (5) Wenxing Luo, MinMing Zou, Lixiang Luo, Wenjing Chen, Xiaowu Hu\*, et al. Lipophilic modified hierarchical multiporous rGO aerogel-based organic phase change materials for effective thermal energy storage. ACS Applied Materials & Interfaces, 2022, 14(49): 55098-55108.  (6) Jiayin Li, Xiaowu Hu\*, et al. Enhanced thermal performance of phase-change materials supported by mesoporous silica modified with polydopamine/nano-metal particles for thermal energy storage. Renewable Energy, 2021, 178: 118-127.  (7) Lixiang Luo, Wenxing Luo, Wenjing Chen, Xiaowu Hu\*, et al. Form-stable phase change materials based on graphene-doped PVA aerogel achieving effective solar energy photothermal conversion and storage. Solar Energy, 2023, 255: 146-156.  (8) Xiaoyang Bi, Xiaowu Hu\*, Qinglin Li. Effect of Co addition into Ni film on shear strength of solder/Ni/Cu system: experimental and theoretical investigations. Materials Science and Engineering: A, 2020, 788: 139589.  (9) Jiatao Zhou, Xiaowu Hu\*, Jialing Li. Effect of Cu on the diffusion behavior and electrical properties of Ni-Co conversion coating for metallic interconnects in solid oxide fuel cells. Journal of Alloys and Compounds, 2021, 887: 161358.  (10) Jinxuan Cheng, Xiaowu Hu\*, Qinglin Li. Effects of the Ni electrodeposit on microstructure evolution and electrical resistance of the P-type Bi2Te3 solder joint. Journal of Alloys and Compounds, 2020, 832: 155006.  (11) Bin Chen, Xiaowu Hu\*, et al. Influence of Fe and Ho additions on Sn-3.0 Ag-0.5 Cu solder alloy: Microstructure, electrochemical and mechanical properties. Materials Characterization, 2023, 205: 113307.  (12) Zezong Zhang, Xiaowu Hu\*, et al. Study of microstructure, growth orientations and shear performance of Cu/Sn-3.0 Ag-0.5 Cu/Cu solder joints by using thermal gradient bonding. Materials Characterization, 2023, 203: 113133.  (13) Bin Chen, Minming Zou, Wenjing Chen, Xiaowu Hu\*, et al. Influence of CrFeCoNiCu high-entropy alloy and ultrasonic stirring on the thermal, electrochemical and mechanical properties of Zn-30Sn high-temperature solder alloy. Materials Characterization, 2023, 201:112977.  (14) Jiatao Zhou, Wenjing Chen, Jue Wang, Xiaowu Hu\*, et al. Microstructure and diffusion behavior of Co-Ni-W conversion coating for metallic interconnect of solid oxide fuel cell. Materials Characterization, 2022, 194: 112378.  (15) Haozhong Wang, Xiaowu Hu\*, Xiongxin Jiang. Effects of Ni modified MWCNTs on the microstructural evolution and shear strength of Sn-3.0 Ag-0.5 Cu composite solder joints. Materials Characterization, 2020, 163: 110287. | | | | |