网站个人信息

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| 所学专业 | 机械工程 | 毕业院校 | 清华大学 |
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| 个人信息 | 博士毕业于清华大学高端装备界面科学与技术全国重点实验室(原摩擦学国家重点实验室)；中海油研究总院从事技术研发工作5年；国家留基委公派于美国Texas A&M University机械工程系访学1年；南昌大学赣江特聘教授，学科方向带头人，博士研究生导师。入选江西省首届“双千计划”创新领军人才(青年)长期项目、中国腐蚀与防护学会第一届磨蚀与防护技术专业委员会、中国机械工程学会摩擦学分会青工委委员、洪城特聘专家。Friction、《机械强度》青年编委。主要研究领域为微纳制造、表面界面微纳摩擦学理论和应用，研究方向包括集成电路复合抛光、摩擦/自润滑材料开发、食品摩擦学等。指导本科生获得国家级及省级学科竞赛奖10余项；中文核心期刊发表教改论文3篇；主持省级教改项目；主编、副主编专著/教材2部；省级一流本科课程主讲人；获南昌大学授课质量优秀提名奖、在线开放课程人气奖；智慧树网“人气课”。主持国家自然科学基金及省部级科研项目6项；单独第一或单独通讯作者在Friction、Wear、Tribology International、Applied Surface Science、Materials & Design等期刊发表SCI论文30余篇；获授权专利20余项；制定国家标准2部、行业标准2部；获省部级奖励1项。 |
| 教育经历 | 1) 2006-9至2011-1, 清华大学, 机械工程, 博士2) 2003-9至2006-1, 中南大学, 机械工程, 硕士(免试推荐)3) 1999-9至2003-7, 中南大学, 机械工程, 学士 |
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| 科研项目 | 1) 国家自然科学基金，集成电路新型互连金属钴电化学机械抛光及原子尺度机理研究，2022/01-2025/12，35万元，主持2) 国家自然科学基金，超声弯曲振动辅助化学机械抛光原子级光滑蓝宝石衬底机理研究，2019/01-2022/12，43万元，主持3) 江西省专项建设，南昌大学摩擦学重点实验室建设，2017/12-2020/12，500万元，主持4) 江西省“双千计划”首批引进类创新领军人才长期（青年）项目，2019/01-2023/12，100万元，主持5) 江西省“揭榜挂帅”项目课题，大功率电滑环摩擦磨损分析和表征技术研究，2023/07-2025/08，20万元，主持6) 摩擦学国家重点实验室开放基金重点项目，基于摩擦学的食品安全和质量检测新方法，2017/01-2019/12，10万元，主持 |
| 科研成果 | 一、发表论文：1. Mufang Zhou, Min Zhong, Wenhu Xu\*, Novel model of material removal rate on ultrasonic-assisted chemical mechanical polishing for sapphire, Friction, 2023, 11:2073–2090. (SCI 中科院1区)
2. Wenhu Xu, Zhuoyuan Xu, Chuanjin Fu, et al., Influences of CrFe granularity and proportion on braking performance and dynamic response of Cu-based pads, Wear, 2023, 530–531:205043. (SCI 中科院1区)
3. Zhuoyuan Xu, Min Zhong, Wenhu Xu\*, et al., Effects of aluminosilicate particles on tribological performance and friction mechanism of Cu-matrix pads for high-speed trains, Tribology International, 2023, 177:107983. (SCI 中科院1区)
4. Hongguang Deng, Min Zhong, Wenhu Xu\*, Investigation of green alkaline pH regulators on sapphire UV-CMP, Tribology International, 2023, 178:108047. (SCI 中科院1区)
5. Chenguang Lai, Min Zhong, Wnehu Xu\*, et al., Influences of B4C and carbon nanotubes on friction and wear performance of Cu base self-lubricating composite, Tribology International, 2023, 187:108726. (SCI 中科院1区)
6. Wenhu Xu, Dong Hu, Zhuoyuan Xu, et al., Synergy between carbon fibers and copper-plated graphite on tribological performance of Cu-based composites, Wear, 2023, 534–535:205159. (SCI 中科院1区)
7. Hongguang Deng, Min Zhong, Wenhu Xu\*, Effects and mechanisms of different types of surfactants on sapphire ultrasonic polishing, Tribology International, 2023, 187:108734. (SCI 中科院1区)
8. Wenhu Xu, Chong Sheng, Min Zhong, Effects of ultrasonic vibration on sapphire polishing investigated by molecular dynamics, Tribology International, 2022, 176:107911. (SCI 中科院1区)
9. Wenhu Xu, Shuaike Yu, Min Zhong, A review on food oral tribology, Friction, 2022, 10:1927–1966. (SCI 中科院1区)
10. Meirong Yi, Jiaxun, Qiu, Wenhu Xu\*, Tribological performance of ultrathin MoS2 nanosheets in formulated engine oil and possible friction mechanism at elevated temperatures, Tribology International, 2022, 167:107426. (SCI 中科院1区)
11. Wenhu Xu, Chuanjin Fu, Min Zhong, et al., Effect of type and content of iron powder on the formation of oxidized film and tribological properties of Cu-matrix composites, Materials & Design, 2022, 214:110383. (SCI 中科院1区)
12. Min Zhong, Ziluo Zhang, Shuaike Yu, Wenhu Xu\*, Friction study of honey-water in a mimicked soft oral environment, Journal of Food Engineering, 2024, 365:111840. (SCI 中科院1区)
13. Mufang Zhou, Yuanyao Cheng, Min Zhong, Wenhu Xu\*, Macro and micro-nano machining mechanism for ultrasonic vibration assisted chemical mechanical polishing of sapphire, Applied Surface Science, 2023, 640:158343. (SCI 中科院2区TOP)
14. Fangjin Xie, Min Zhong, Wenhu Xu\*, Investigation of electrochemical behavior and polishing mechanism in electrochemical mechanical polishing of cobalt, Materials Science in Semiconductor Processing, 2024, 169:107899. (SCI 中科院2区)
15. Wenhu Xu, Jianzhong Jiang, Qixiang Xu, et al., Drinking tastes of Chinese rice wine under different heating temperatures analyzed by gas chromatography–mass spectrometry and tribology tests, Journal of Texture Studies, 2021, 52:124–136. (SCI 中科院2区)
16. Xingbang Qiu, Min Zhong, Wenhu Xu\*, Improving the swallowability of representative foods for the elderly and people with dysphagia, Journal of Texture Studies, 2024, 55:e12821. (SCI)
17. Xianghong Liu, Min Zhong, Wenhu Xu\*, Molecular dynamics study of sapphire polishing considering chemical products, ECS Journal of Solid State Science and Technology, 2023, 12:124002. (SCI)
18. Chong Sheng, Min Zhong, Wenhu Xu\*, A study on mechanism of sapphire polishing using the diamond abrasive by molecular dynamics, Mechanics of Advanced Materials and Structures, 2023, 30:319–331. (SCI)
19. Shuaike Yu, Min Zhong, Wenhu Xu\*, In vitro oral simulation based on soft contact: the importance of viscoelastic response of the upper jaw substitutes, Journal of Texture Studies, 2023, 54:54–66. (SCI)
20. Mufang Zhou, Min Zhong, Wenhu Xu\*, Effects of ultrasonic amplitude on sapphire ultrasonic vibration assisted chemical mechanical polishing by experimental and CFD method, Mechanics of Advanced Materials and Structures, 2022, 29:7086–7103. (SCI)
21. Hongguang Deng, Min Zhong, Wenhu Xu\*, Effects of different dispersants on chemical reaction and material removal in ultrasonic assisted chemical mechanical polishing of sapphire, ECS Journal of Solid State Science and Technology, 2022, 11:033007. (SCI )
22. Chuanjin Fu, Min Zhong, Wenhu Xu\*, et al., Synergistic effects of different graphite on the braking performance of Cu-matrix friction materials for high-speed trains based on pin-disc tests, Tribology Transactions, 2022, 65:1008–1021. (SCI )
23. Wenhu Xu, Qixiang Xu, Min Zhong, Lubrication study of representative fluid foods between mimicked oral surfaces, Journal of Texture Studies, 2022, 53:96–107. (SCI)
24. Jianfeng Chen, Zefan Yang, Wenhu Xu\*, et al., Sorting of circulating tumor cells based on the microfluidic device of a biomimetic splenic interendothelial slit array, Microfluidics and Nanofluidics, 2021, 25:57. (SCI )
25. Wenhu Xu, Chuanjin Fu, Yun Hu, et al., Synthesis of hollow core-shell MoS2 nanoparticles with enhanced lubrication performance as oil additives, Bulletin of Materials Science, 2021, 44:88. (SCI )
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27. Wenhu Xu\*, Lian Ma, Yan Chen, Hong Liang\*, In situ study of mechanical-electrochemical interactions during cobalt ECMP, Journal of The Electrochemical Society, 2018, 165(5): 184-189. (SCI 中科院2区)
28. Wenhu Xu\*, Lian Ma, Yan Chen, Hong Liang\*, Mechano-oxidation during cobalt polishing, Wear, 2018, 416-417:36–43. (SCI 中科院2区)
29. Ying Liu, Jingru Hu, Min Zhong, Wenhu Xu\*, A novel, simple and rapid method for the detection of melamine from milk based on tribology measurements, Tribology International, 2018, 119: 66–72（SCI 中科院2区）
30. Wenhu Xu, Yuanyao Cheng, Min Zhong\*, Effects of process parameters on chemical-mechanical interactions during sapphire polishing, Microelectronic Engineering, 2019, 216: 111029. (SCI)

二、授权专利20余项三、出版专著/教材2部四、制定国家标准2部、行业标准2部五、获省部级科技奖励1项六、指导毕业研究生13人，每人至少发表SCI论文1篇，人均近2篇；8人获国家奖学金或江西省政府奖学金；6人获南昌大学优秀毕业研究生 |