


合肥学院研究生校内导师简介

姓名	胡 坤 宏	性别	男	
学历	博士研究生	学位	工学博士	
院系	能源材料与化工学院		专业技术职务 及专家称谓	教 授
邮箱	hukunhong@163.com; chemhu@hfu.edu.cn			
主要研究领域 及方向	润滑材料；机械摩擦学与表面技术；聚合物基复合材料；矿物材料；节能环保材料；催化材料；润滑油合成与改性			
个人 简历	<p>1975年11月出生，工学博士，教授，中国机械工程学会摩擦学分会理事，安徽省学术和技术带头人后备人选，安徽省教学名师，省级教坛新秀，合肥市专业技术拔尖人才；长期从事机械、化工、环境、材料等交叉学科的研究工作，主持过国家与省级多项科研项目；2013年获安徽省科学技术二等奖，2015年获安徽省杰出青年基金，2015年获第十六届安徽青年科技奖，2017年获安徽省科学技术三等奖；被包括以下的数十种国际期刊邀请为审稿人：<i>Tribology International</i>; <i>Chemical Engineering Journal</i>; <i>ACS Applied Materials & Interfaces</i>; <i>Materials Today</i>; <i>Applied Surface Science</i>; <i>Catalysis Communications</i>; <i>Nanoscale</i>; <i>Applied Catalysis A: Industrial & Engineering Chemistry Research</i>; <i>Journal of Materials Science</i>; <i>Nano-Micro Letters</i>; <i>Dalton Transactions</i>; <i>ACS Applied Nano Materials</i>; <i>Materials Chemistry and Physics</i></p>			
近五年 主要 科研项目	<p>[1] 主持，国家自然科学基金面上项目《二硫化钼复合润滑剂的摩擦诱导功能转变机制及其绿色设计》，2014.1-2017.12，批准号：51375139。</p> <p>[2] 主持，安徽省杰出青年基金项目《二硫化钼复合物改性金属-塑料滑动轴承的摩擦学性能及其绿色设计》，2015.07-2019.3 批准号：1508085J10。</p> <p>[3] 主持，安徽高校自然科学研究重大项目《废白土负载过渡金属二元硫化物的微观协同润滑机制及其工业化应用》，2018.07-2021.06. 批准号：KJ2018ZD053。</p> <p>[4] 主持，安徽高校优秀青年人才支持计划项目《滑动轴承的自润滑设计与延寿技术》，2014.07-2015.06。</p> <p>[5] 主持，横向课题《天然矿物用作污水处理新技术开发》，2015.12-2017.12</p> <p>[6] 主持，横向课题《合作共建“诺泰生物科技绿色润滑工程技术中心”》，2016.9-2018.12</p> <p>[7] 主持，横向课题《绿色环保型纳米级润滑添加剂应用技术》，2016.9-2018.12</p>			

主要成果
(论文、
著作、专
利等)

代表性学术论文 (*为通讯作者)

- [1] Ziyang Lu, Zhenzhen Cao, Enzhu Hu, **Kunhong Hu***, Xianguo Hu. Preparation and tribological properties of WS₂ and WS₂/TiO₂ nanoparticles. *Tribology International*, 2019, 130: 308-316.
- [2] Yueru Liu, **Kunhong Hu***, Enzhu Hu, Jianhua Guo, Chengliang Han, Xianguo Hu, Double hollow MoS₂ nano-spheres: Synthesis, tribological properties, and functional conversion from lubrication to photocatalysis. *Applied Surface Science*, 2017, 392, 1144-1152.
- [3] Yong Xu, Enzhu Hu, **Kunhong Hu***, Yufu Xu, Xianguo Hu. Formation of an adsorption film of MoS₂ nanoparticles and dioctyl sebacate on a steel surface for alleviating friction and wear. *Tribology International*, 2015, 92: 172–183.
- [4] Z. Y. Xu, **K. H. Hu***, Y. K. Cai, F. Huang, C. L. Han. Tribological properties of molybdenum disulphide nanoparticles in soybean oil, *Tribology-Materials, Surfaces & Interfaces*, 2014, 8(4):179-186.
- [5] 胡坤宏, S.Schraube, 徐玉福, 胡献国, R.Stengler. 二硫化钼改性聚甲醛自润滑复合材料的微观摩擦学性能研究, *摩擦学学报*, 2010, 30(1), 38-45.
- [6] **K. H. Hu**, J. Wang, S. Schraube, Y. F. Xu, X. G. Hu, R. Stengler. Tribological properties of MoS₂ nano-balls as filler in plastic layer of three-layer self-lubrication bearing materials, *Wear*, 2009, 266 (11-12): 1198–1207.
- [7] **K. H. Hu**, M. Liu, Q. J. Wang, Y. F. Xu, S. Schraube, X. G. Hu, Tribological properties of molybdenum disulfide nanosheets by monolayer restacking process as additive in liquid paraffin, *Tribology International*, 2009, 42(1): 33–39.
- [8] **K. H. Hu**, X. G. Hu, Formation, exfoliation and restacking of MoS₂ nanostructures, *Materials Science and Technology*, 2009, 25 (3), 407-414.
- [9] **K. H. Hu**, Y. R. Wang, X. G. Hu, and H. Z. Wo, Preparation and Characterisation of Ball-like MoS₂ Nano particles, *Materials Science and Technology*, 2007, 23(2):242-246.
- [10] **K. H. Hu**, Y. K. Cai, X. G. Hu, Y. F. Xu, Synthesis and tribological properties of MoS₂ composite nanoparticles with different morphologies, **Surface Engineering**, 2011, 27(7): 544–550.
- [11] **K. H. Hu**, X. G. Hu, X. J. Sun, Morphological effect of MoS₂ nanoparticles on catalytic oxidation and vacuum lubrication, *Applied Surface Science* 256 (2010) 2517–2523.
- [12] **K. H. Hu**, X. G. Hu, J. Wang, Y. F. Xu, C. L. Han. Tribological properties of MoS₂ with different morphologies in high-density polyethylene. *Tribology Letters*, 2012, 47: 79–90.
- [13] **K. H. Hu***, Y. K. Cai, X. G. Hu, Y. F. Xu, Synergistic lubrication of MoS₂ particles with different morphologies in liquid paraffin, *Industrial Lubrication and Tribology*, 2013, 65 (3): 143–149
- [14] Z. Y. Xu, **K. H. Hu***, C. L. Han, X. G. Hu, Y. F. Xu. Morphological Influence of Molybdenum Disulfide on the Tribological Properties of Rapeseed Oil, *Tribology Letters*, 2013, 49: 513–524.
- [15] **Kun Hong Hu**, Xian Guo Hu, Yu Fu Xu, Fei Huang, Jun Sheng Liu, The effect of morphology on the tribological properties of MoS₂ in liquid paraffin, *Tribology Letters*, (2010) 40:155–165.

- [16] E.Z. Hu, Y.Xu, **K.H. Hu***, X.G. Hu. Tribological properties of 3 types of MoS₂ additives in different base greases. *Lubrication Science*, 2017;29:541–555.
- [17] **胡坤宏**, 徐勇, 徐玉福, 胡献国. 不同形态的二硫化钼润滑剂在离子液体中的摩擦学性能. *摩擦学学报*, 2015, 35(2): 167-175.
- [18] Lei Wang, Bin Shi, Enzhu Hu, **Kunhong Hu***, Xianguo Hu. Reuse of spent bleaching clay for supporting MoS₂ nanoparticles as a lubricating filler in ABS plastics. *Tribology International*, 2019, 131: 415-423.
- [19] Lehua Cheng, Enzhu Hu, Xianquan Chao, Renfa Zhu, **Kunhong Hu***, Xianguo Hu. MoS₂/montmorillonite nanocomposite: Preparation, tribological properties, and inner synergistic lubrication. 2018, *Nano*, 13,(12):1850144
- [20] **K. H. Hu***, Y. Xu, E. Z. Hu, J. H. Guo, X. G. Hu. Rolling friction performance and functional conversion from lubrication to photo catalysis of hollow spherical nano-MoS₂/nano-TiO₂, *Tribology International*, 2016, 104: 131–139.
- [21] Z. Y. Xu, Y. Xu, **K. H. Hu***, Y. F. Xu, X. G. Hu. Formation and tribological properties of hollow sphere-like nano-MoS₂ precipitated in TiO₂ particles. *Tribology International*, 2015, 81: 139–148.
- [22] **K. H. Hu**, F. Huang, X. G. Hu, Y. F. Xu, Y. Q, Zhou. Synergistic effect of nano-MoS₂ and anatase nano-TiO₂ on the lubrication properties of MoS₂/TiO₂ nano-clusters, *Tribology Letters*, 2011, 43: 77–87.
- [23] Bin Shi, Jian Hua Guo, Xing An Cao, En Zhu Hu, **Kun Hong Hu***. Effects of carbon soot from the combustion of diesel fuels on the tribological properties of lubricating oil and diesel fuels, *Industrial Lubrication and Tribology*, 2018, 70(3): 532-537.
- [24] X. A. Cao, G. Q. Shao, **K. H. Hu***. Tribological modification of high-density polyethylene by using carbon soot from diesel combustion, *Industrial Lubrication and Tribology*, 2016, 68(5): 603–610.
- [25] **K.H. Hu**, Z. Liu, F. Huang, X. G. Hu, **C. L. Han**, Synthesis and photocatalytic properties of nano-MoS₂/kaolin composite, *Chemical Engineering Journal*, 162 (2010) 836–843.
- [26] **K. H. Hu**, X. G. Hu, Y. F. Xu, J. D. Sun, Synthesis of nano-MoS₂/TiO₂ composite and its catalytic degradation effect on methyl orange, *Journal of Materials Science*, 2010, 45: 2640–2648.
- [27] K. H. Hu*; X. G. Hu; C. C. Hu. Exfoliation and restacking of MoS₂ nanoplatelets in Co²⁺ solution. *Materials Technology: Advanced Performance Materials*. 2013, 28(3): 169–173.
- [28] **Hu Kun-hong**, ZHAO Di-fang, LIU Jun-sheng. Synthesis and application of nano-MoS₂/bentonite composite for the removal of organic dye. *Trans. Nonferrous Met. Soc. China*, 2012, 22(10): 2484–2490.
- [29] **K. H. Hu**, Y. K. Cai, G. Q. Shao, X. L. Cui, Synthesis and photocatalytic properties of nano-MoS₂/AlOOH composite, *Reaction Kinetics, Mechanisms and Catalysis*, 2011, 103:153–164.
- [30] **K. H. Hu**, X. G. Hu, Y. F. Xu, X. Z. Pan, The effect of morphology and size on the photocatalytic properties of MoS₂, *Reaction Kinetics, Mechanisms and Catalysis*, 2010, 100(1): 153-163.

	<p>学术著作（章节）</p> <p>[1] Kunhong Hu*, Xianguo Hu*, Yufu Xu, Xiaojun Sun, Yang Jiang. “Tribology of MoS₂-Based Nanocomposites”, Chapter 3, In “Tribology of Nanocomposites” Edited by J. P. Davim, ISBN: 978-3-642-33881-6, Springer Berlin Heidelberg, Invited Book Chapter. 2013</p> <p>[2] K. H. Hu, X. G. Hu*, R. Stengler, “Tribology of Composite Materials with Inorganic Lubricants”, Chapter 3, In “Tribology of Composite Materials”, Edited by J. P. Davim, ISBN: 978-1-61668-319-1, Nova Science Publishers, Inc., Invited Book Chapter. 2010</p> <p>申请与授权专利</p> <p>[1] 胡坤宏, 黄飞, 蔡永愧. 发明名称: 氧化钨纳米粉体与金属钨纳米粉体的制备方法, 申请号: CN201210078592.X. (已授权)</p> <p>[2] 胡坤宏, 赵娣芳, 蔡永愧. 发明名称: 一种二硫化钼/绢云母复合材料及其制备方法, 申请号: CN201210078581.1. (已授权)</p> <p>[3] 胡坤宏, 蔡永愧. 发明名称: 一种二硫化钼纳米球/二氧化钛复合材料及其制备方法, 申请号: CN201010524516.8. (已授权)</p> <p>[4] 胡坤宏, 秦广超, 徐勇, 曹兴安, 刘密密. 发明名称: 一种二硫化钼/二氧化钛复合物及其制备方法, 申请号: CN201410369695.0. (已授权)</p> <p>[5] 胡坤宏, 晁先泉, 史彬, 陈浩, 姜进洪, 胡恩柱. 一种二硫化钨/二硫化钼/蒙脱土复合物及其制备方法, 申请号 CN201510416871.6.</p> <p>[6] 胡坤宏, 胡恩柱, 秦广超, 赵楠楠, 王柳. 发明名称: 一种二硫化钨/二硫化钼复合物及其制备方法, 申请号: CN201510416794.4. (实审)</p> <p>[7] 胡坤宏, 刘月如, 史彬, 胡恩柱, 王柳: 发明名称: 一种二硫化钨/凹凸棒复合物及其制备方法, 申请号: CN201510416850.4. (实审)</p> <p>[8] 胡坤宏, 胡恩柱, 韩成良, 赵楠楠, 胡艺纹: 发明名称: 一种二硫化钨/二氧化钛复合物及其制备方法, 申请号: CN201510416849.1. (实审)</p> <p>[9] 胡坤宏, 曹兴安, 胡恩柱, 邵国泉. 发明名称: 一种抑制碳烟污染导致的酯类润滑油润滑性能下降的方法, 申请号: CN201510416795.9. (实审)</p> <p>[10] 胡坤宏; 史彬; 郭建华; 陆紫嫣; 胡恩柱; 江文; 徐勇. 一种实现二硫化钼纳米微粒在润滑油中达到溶液级分散的方法, 申请号: 申请号: CN201610719321.6</p>
<p>获奖情况</p>	<ul style="list-style-type: none"> ➤ 2017年获安徽省科学技术三等奖（排名第1） ➤ 2015年第十六届安徽青年科技奖 ➤ 2015年安徽省教学名师 ➤ 2013年获安徽省科学技术二等奖（排名第2） ➤ 2010—2011年度合肥学院优秀科研成果二等奖 ➤ 2011国际化学年全国趣味化学实验设计大赛，二等奖，指导教师 ➤ 2010年获省级教坛新秀奖 ➤ 2009年合肥学院青年教师教学基本功大赛一等奖 ➤ 第五届“挑战杯”合锻股份安徽省大学生创业计划竞赛铜奖，指导教师 ➤ 第二届安徽百万大学生科普创意创新大赛优秀奖，指导教师