吕康乐老师简介

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姓名：吕康乐

职称：教授

邮箱：lvkangle@mail.scuec.edu.cn

通讯地址：武汉市洪山区民族大道182号(430074)

研究方向：光催化、污染控制化学与纳米环境催化材料

学者简介：吕康乐，博士（后），教育部新世纪优秀人才，国家民委领军人才，湖北省杰出青年基金获得者，中国感光学会光催化专业委员会委员，SCI期刊*Chinese Journal of Catalysis*编委和Frontiers in Chemistry副编辑。

1995年毕业于长安大学工业分析专业，2003年毕业于浙江工业大学工业催化专业（工学硕士），2006年毕业于浙江大学化学专业（理学博士），2006年9月进入中南民族大学工作（期间2008年7月-2011年4月为武汉理工大学材料复合新技术国家重点实验室博士后；受国家留学基金委资助，2011年5月-2012年4月访问英国University of Bristol；2016年1月-6月，受香港裘槎基金会资助，访问香港教育大学（The Education University of HongKong）环境学系）。

主持国家自然科学基金项目3项，已经在*Appl. Catal. B: Environ.*和*J. Hazard. Mater.*等国际权威期刊，发表SCI收录论文120余篇（他引5800余次），个人H指数45。2009和2018年两次获中南民族大学“三育人”先进个人荣誉称号，2011年获得湖北省杰出青年基金，2012年入选教育部“新世纪优秀人才支持计划”，2017年获湖北省自然科学奖三等奖（排名第一），2018年入选国家民委“领军人才支持计划”。

主讲课程：

（本科生课程）工业分析、工业催化、物理化学与胶体化学、环境监测、高级氧化技术、水环境化学

（研究生课程）光化学、化学英文写作与投稿

教学及科研项目：

1. 国家自然科学基金面上项目，基于晶面接触效应构建高效半导体复合光催化材料（51672312），2017-2020，主持.

2. 国家自然科学基金面上项目, 基于生物原细胞模型的凝聚层半导体光催化体系研究（21373275），2014-2017，主持.

3.教育部“新世纪优秀人才支持计划”，空心纳米颗粒自组装二氧化钛空心微球光催化空气净化（NCET-12-0668），2013-2015，主持.

4. 湖北省杰出青年基金，橄榄球形单晶二氧化钛空心球的制备与光催化性能研究（2011CDA107），2011-2013，主持.

5. 国家自然科学基金面上项目，高能面二氧化钛的超强氟效应光催化降解恶臭有毒气体（20977114，2010-2012，主持.

教学及科研论文：

1.Yuhan Li, Miaoli Gu, Xianming Zhang, Jiajie Fan, **Kangle Lv***, Sónia A.C. Carabineiro*, Fan Dong*, 2D g-C3N4 for advancement of photo-generated carrier dynamics: Status and challenges, *Mater. Today***2021**, DOI: 10.1016/j.mattod.2020.09.004.

2.Kaining Li, Sushu Zhang, Yuhan Li*, Jiajie Fan, **Kangle Lv***, MXenes as noble-metal-alternative co-catalysts in photocatalysis, *Chin. J. Catal.***2021**, *42*, 3-14.

3.Xiaofang Li, Zhao Hu, Qin Li, Ming Lei, Jiajie Fan, Sónia A.C. Carabineiro, Yi Liu*, **Kangle Lv***, Three in one: atomically dispersed Na boosting the photoreactivity of carbon nitride towards NO oxidation, *Chem. Commun.***2020**, DOI: 10.1039/d0cc05948j.

4.Zhao Hu, Xiaofang Li*, Sushu Zhang, Qin Li, Jiajie Fan, Xianlin Qu, **Kangle Lv***, Fe_1/TiO_2 hollow microspheres: Fe and Ti dual active sites boosting the photocatalytic oxidation of NO, *Small***2020**, 2004583.

5.Xiaofang Li, Xiaofeng Wu, Shengwei Liu, Yuhan Li, Jiajie Fan, **Kangle Lv***, Effects of fluorine on photocatalysis, *Chin. J. Catal.* **2020**, 41, 1451-1467.

6.Chao Yang, Qiuyan Tan, Qin Li, Jie Zhou*, Jiajie Fan, Bing Li, Jie Sun, Kangle Lv*, 2D/2D Ti_3C_2 MXene/g-C_3N_4 nanosheets heterojunction for high efficient CO_2 reduction photocatalyst: Dual effects of urea, *Appl. Catal. B: Environ.* **2020**, *268*, 118738.

7.Chao Yang, Sushu Zhang, Yi Huang, **Kangle Lv***, Shun Fang, Xiaofeng Wu, Qin Li, Jiajie Fan, Sharply increasing the visible photoreactivity of g-C_3N_4 by breaking the intralayered hydrogen bonds, *Appl. Surf. Sci.***2020**, 505, 144654.

8.Yuhan Li, Miaoli Gu, Ting Shi, Wen Cui, Xianming Zhang, Fan Dong*, Jinshui Cheng, Jiajie Fan, **Kangle Lv***, Carbon vacancy in C_3N_4 nanotube: electronic structure, photocatalysis mechanism and highly enhanced activity. *Appl. Catal. B***2020**, 262, 118281.

9.Lianqing Chen*, Lijun Tian, Jinyang Xie, Chengjiang Zhang, Junning Chen, Yu Wang, Qin Li, **Kangle Lv***, Kejian Deng. One-step solid state synthesis of facet-dependent contact TiO_2 hollow nanocubes and reduced graphene oxide hybrids with 3D/2D heterojunctions for enhanced visible photocatalytic activity. *Appl. Surf. Sci*. **2020**, *504*, 144353.

10.Xiaofang Li, Heng Yang, **Kangle Lv***, Lili Wen, Yi Liu*, Fabrication of porous TiO_2 nanosheets assembly for improved photoreactivity towards X3B dye degradation and NO oxidation. *Appl. Surf. Sci.* **2020**, *503*, 144080.

11.Zhao Hu, Chao Yang, **Kangle Lv***, Qin Li, Xiaofang Li, Jiajie Fan, Single atomic Au induced dramatic promotion of the photocatalytic activity of TiO_2 hollow microspheres, *Chem. Commun.***2020**, *56*, 1745-1748.

12.Lianqing Chen*, Lijun Tian, Xuan Zhao, Zhao Hu, Jiajie Fan, **Kangle Lv***, SPR effect of Au nanoparticles on the visible photocatalytic RhB degradation and NO oxidation over TiO_2 hollow nanoboxes, *Arab. J. Chem.***2020**, *13*, 4404-4416.

13.Yachao Lu, Xiaoyu Ou, Wenguang Wang*, Jiajie Fan, **Kangle Lv***, Fabrication of TiO_2 nanofiber assembly from nanosheets (TiO_2-NFs-NSs) by electrospinning-hydrothermal method for improved photoreactivity, *Chin. J. Catal.* **2020**, *41*, 209–218.

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15.Zhao Hu, Kaining Li, Xiaofeng Wu, Ning Wang*, Xiaofang Li, Qin Li, Lin Li, Kangle Lv*, Dramatic promotion of visible-light photoreactivity of TiO_2 hollow microspheres towards NO oxidation by introduction of oxygen vacancy, *Appl. Catal. B***2019**, *256*, 117860.

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17.Jinshui Cheng, Zhao Hu, Qin Li, Xiaofang Li*, Shun Fang, Xiaofeng Wu, Mei Li, Yaobin Ding, Bing Liu, Changjun Yang, Lili Wen, Yi Liu, **Kangle Lv***, Fabrication of high photoreactive carbon nitride nanosheets by polymerization of amidinourea for hydrogen production, *Appl. Catal. B: Environ.***2019**, *245*, 197-206.

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19.Xiaofeng Wu, Jinshui Cheng, Xiaofang Li*, Yuhan Li, Kangle Lv*, Enhanced visible photocatalytic oxidation of NO by repeated calcination of g-C_3N_4, *Appl. Surf. Sci.***2019**, *465*, 1037-1046.

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21.Youyu Duan, Li Liang, Kangle Lv*, Qin Li, Mei Li*, TiO_2 faceted nanocrystals on the nanofibers: Homojunction TiO_2 based Z-scheme photocatalyst for air purification, *Appl. Surf. Sci.***2018**, *456*, 817-826.

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33.Ruiwen Yang, Jinghua Cai, Kangle Lv*, Xiaofeng Wu, Wenguang Wang, Zhihua Xu, Mei Li*, Qin Li, Weiqing Xu, Fabrication of TiO_2 Hollow Microspheres Assembly from Nanosheets (TiO_2-HMSs-NSs) with Enhanced Photoelectric Conversion Efficiency in DSSCs and Photocatalytic Activity. *Appl. Catal. B***2017**, *210*, 184-193.

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35.Yuhan Li, **Kangle Lv***, Wingkei Ho*, Fan Dong, Xiaofeng Wu, Yang Xia, Hybridization of rutile TiO_2 ($rTiO_2$) with g-C_3N_4 quantum dots (CN QDs): An efficient visible-light-driven Z-scheme hybridized photocatalyst. *Appl. Catal. B* **2017**, *202*, 611-619.

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37.**Kangle Lv***, Shun Fang, Lingling Si, Yang Xia, Wingkei Ho*, Mei Li, Fabrication of TiO_2 nanorod assembly grafted rGO (rGO@TiO_2-NR) hybridized flake-like photocatalyst. *Appl. Surf. Sci*. **2017**, *391*, 218-227.

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41.Xiaofeng Wu, Lili Wen, **Kangle Lv***, Kejian Deng, Dingguo Tang, Hengpeng Ye, Dongyun Du, Sining Liu, Mei Li*, Fabrication of ZnO/graphene flake-like photocatalyst with enhanced photoreactivity. *Appl. Surf. Sci.***2015**, *358*, 130-136.

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44.Ze'ai Huang, Qiong Sun, **Kangle Lv***, Zehui Zhang, Mei Li, Bing Li, Effect of contact interface between TiO_2 and g-C_3N_4 on the photoreactivity of g-C_3N_4/TiO_2 photocatalyst: (001) *vs* (101) facets of TiO_2. *Appl. Catal. B* **2015**, *164*, 420-427.

45.**Kangle Lv**, A.W. Perriman*, S. Mann*, Photocatalytic multiphase micro-droplet reactors based on complex coacervation. *Chem. Commun.***2015**, *51*, 8600-8602.

授权专利:

1. 吕康乐，程金水，方顺，伍晓锋，李玫，李覃，杨昌军，唐和清，一种高可见光活性石墨相氮化碳及其应用，ZL201710267741.X，国家发明专利，授权日期：2019年8月22日.

2. 吕康乐，伍晓锋，李玫，李覃，邓克俭，朱君江，黄涛，凝聚层体系在环境污染物选择性光催化降解中的应用，ZL201510147918.3，国家发明专利，授权日期：2016年8月24日.

3. 吕康乐，黄泽皑，王洲游，蔡晶华，郑洋，孙杰，邓克俭，杜冬云，一种高能面二氧化钛纳米片光催化剂的制备方法，ZL201210570716.6，国家发明专利，授权日期：2014年10月1日.

4、吕康乐，蔡晶华，王洲游，郑洋，黄泽皑,一种由空心纳米颗粒组装成二氧化钛空心微球的制备方法，ZL201210218309.9，国家发明专利，授权日期：2014年3月12日.

获奖情况:

1. 吕康乐，温丽丽，蔡晶华，周丽，李玫，高效环境光催化材料的制备与应用，湖北省自然科学奖三等奖，2017年12月，证书编号：2017Z-023-3-007-002-R01.

2. 邓克俭，吕康乐，孙杰，胡军成，吴桂萍，环境光催化剂的修饰改性与构效关系，湖北省自然科学奖三等奖，2013年12月，证书编号：2013Z-029-3-011-004-R02.

武汉市洪山区民族大道182号 邮编 430074 联系电话：027-67841369