

个人简历

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个人简介

吴磊，1980年生，南京农业大学教授、博士生导师，理学院副院长。2001年本科毕业于安徽师范大学，同年考取中国科学院广州化学研究所有机化学专业，从事天然产物的全合成研究，2004年获得中国科学院理学硕士学位。2007年博士毕业于中国科学院化学研究所，师从范青华研究员。2007年11月-2010年5月在美国 Syracuse University 和 University of Notre Dame 从事博士后研究，2010年5月-2012年8月任职于哈尔滨工业大学基础与交叉科学研究院，2012年8月以高层次人才引进方式调动至南京农业大学。主要研究方向为含磷有机物的合成方法学和金属纳米催化材料，先后主持国家自然科学基金(面上及青年项目)、江苏省自然科学基金(面上项目)、教育部留学回国人员科研启动项目、北京分子科学国家实验室开放基金、南京农业大学高层次人才启动基金、哈尔滨工业大学引进人才启动基金等多项科研项目，已在 *ACS Catal.*, *Org. Lett.*, *J. Org. Chem.*, *Chem. Eur. J.*, *J. Am. Chem. Soc.*, *Adv. Synth. Catal.*, *Catal. Sci. Technol.* 等国际权威期刊发表论文三十余篇 SCI 收录论文。第一及通讯作者论文 20 余篇，影响因子大于 5.0 论文 11 篇，累计影响因子 >100，他引近 400 次。2012 年为 Bentham 出版集团 *Curr. Org. Chem.* 期刊客座编辑。受邀出版英文图书章节两章(德国 Wiley 和美国 Nova Science 出版社)。先后入选江苏省教育厅“青蓝工程”、江苏省科技厅第四期“333 高层次人才培养工程(第三层次)”以及南京市“321 计划”。为《*有机化学*》、《*化学学报*》、*Org. Lett.*, *Adv. Synth. Catal.*, *J. Org. Chem.*, *RSC Adv.*, *Chem. Eur. J.*, *Eur. J. Org. Chem.* 等国内外知名 SCI 期刊审稿人。

课题组成员(2016年11月):

讲师: 祝洁博士、沙强博士;

2013级博士生: 季益刚(副教授, 在职, 江苏第二师范学院);

2014级博士生: 罗凯(2016校长奖学金获得者);

2015级博士生: 杨文超、陈耀忠(转博, 2015校长奖学金获得者, 2016“大北农”企业奖学金获得者);

2016级博士生: 刘腾(2015研究生国家奖学金获得者, 2016南京农业大学优秀硕士毕业生);

2014级硕士生: 夏运涛、毛矛;

2015级硕士生: 张玲、戴朋、孙晓涛;

2016级硕士生: 韦凯、王晓东、马静;

已毕业学生:

2013级学硕: 张宇(上海EAG laboratories); 2014级专硕: 刘腾(本组读博)

科研项目

7. 主持江苏省自然科学基金（面上项目）一项；
6. 主持国家自然科学基金两项；
5. 主持南京农业大学引进人才科研启动经费；
4. 主持教育部留学回国人员启动经费；
3. 主持北京分子科学国家实验室开放基金、中国科学院分子识别与功能重点实验室开放基金；
2. 主持哈尔滨工业大学引进人才科研启动经费和校创新基金（已结束）；
1. 作为主要成员曾参与国家自然科学基金项目(No. 20325209、205322010), 国家杰出青年基金(No. 2005CCA 06600)、美国国家自然科学基金(NSF No. 0727491)等研究工作；

所获奖项

3. 2013 年江苏省“333 高层次人才培养工程”第三层次、南京市“321 计划”入选者（第五批）
2. 2012 年 受邀为 *Current Organic Chemistry* (IF: 3.064) 杂志客座编(Guest Editor)。
1. 2012 年 江苏省“青蓝工程”优秀青年骨干教师培养对象

教学信息

2016 秋季学期 研究生 《高等有机化学》

2016 春季学期 本科生 《有机化学》 必修课

2014 春季学期 本科生 《精细化学品化学》

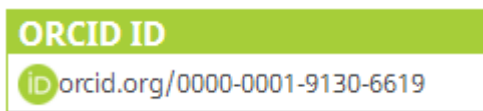
2013 秋季学期 研究生 《现代有机合成技术》 选修课

2013 春季学期 本科生 《有机化学》 必修课

2012-2013 第一学期 《实验化学 II》 必修课

2011 年秋季学期 哈尔滨工业大学化工学院 《有机化学 II》 必修课

发表文章



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英文专著（章节）:

2. **Lei Wu**, Ji Liu, Baode Ma, Qing-Hua Fan*, Homogeneous Asymmetric Catalysis Using Immobilized Chiral Catalysts, (Chapter 4, BOOK TITLE: Bridging Heterogeneous and Homogeneous Catalysis: Concepts, Strategies, and Applications, Edited by Prof. Can Li), **2014**, Wiley-VCH, Page 111-148;
1. Yi-Gang Ji, **Lei Wu***, Recyclable Metal Nanoparticulate Catalysts Based on Dendrimers, (Chapter 11, BOOK TITLE: Dendrimers: Synthesis, Applications and Role in Nanotechnology) Nova Science Publishers, New York **2013**, Page 249-263;

通讯作者论文:

21. Wen-Chao Yang, Peng Dai, Kai Luo, Yi-Gang Ji, **Lei Wu***, Aldehydes as Carbon Radical Acceptors: Silver Nitrate Catalyzed Cascade Decarboxylation and Oxidative Cyclization toward Dihydroflavonoid Derivatives, *Advanced Synthesis & Catalysis*, **2017**, In Revision. (SCI IF: 6.453)

20. Yi-Gang Ji, Kai Wei, Teng Liu, **Lei Wu***, Wei-Hua Zhang*, “Naked” Iridium (IV) Oxide Nanoparticles as Expedient and Robust Catalysts for Hydrogenation of Nitrogen Heterocycles: Remarkable Vicinal Substitution Effect and Recyclability, *Advanced Synthesis & Catalysis*, **2017**, 10.1002/adsc.201601370. (SCI IF: 6.453)
19. Kai Luo, Wen-Chao Yang, **Lei Wu***, Photoredox Catalysis in Organophosphorus Chemistry, *Asian Journal of Organic Chemistry*, **2017**, DOI: 10.1002/ajoc.201600512. (Invited Review, SCI IF: 3.275)
18. Mao Mao[#], Ling Zhang[#], Yao-Zhong Chen, Jie Zhu, **Lei Wu***, Palladium-Catalyzed Coupling of Allenylphosphine Oxides with *N*-Tosylhydrazones toward Phosphinyl [3]Dendralenes, *ACS Catalysis*, **2017**, 7, 181-185. (Open Access, Designated as ACS Editor’s Choice, SCI IF: 9.307)
17. Yun-Tao Xia, Xiao-Tao Sun, Ling Zhang, Kai Luo, **Lei Wu***, Metal-free Hydrogen Atom Transfer from Water: Expeditious Hydrogenation of *N*-Heterocycles Mediated by Diboronic Acid, *Chemistry-A European Journal*, **2016**, 22, 17151-17155. (SCI IF: 5.771)
16. Wen-Chao Yang, Peng Dai, Kai Luo, **Lei Wu***, Iodide/*tert*-Butyl Hydroperoxide-Mediated Benzylic C–H Sulfonylation and Peroxidation of Phenol Derivatives, *Advanced Synthesis & Catalysis*, **2016**, 358, 3184-3190. (SCI IF: 6.453)
15. Yu Zhang[#], Jie Zhu[#], Yun-Tao Xia, Xiao-Tao Sun, **Lei Wu***, Efficient Hydrogenation of *N*-heterocycles Catalyzed by Carbon-Metal Covalent Bonds Stabilized Palladium Nanoparticles: Synergistic Effects of Particle Size and Water, *Advanced Synthesis & Catalysis*, **2016**, 358, 3039-3045. (Highlighted by *Synfact*, SCI IF: 6.453)

14. Kai Luo[#], Yao-Zhong Chen[#], Li-Xian Chen, **Lei Wu***, Autoxidative C(sp²)-P Formation: Direct Phosphorylation of Heteroarenes under Oxygen, Metal-Free, and Solvent-Free Conditions. *Journal of Organic Chemistry*, **2016**, *81*, 4682-4689. (SCI IF: 4.785)
13. Kai Luo[#], Yao-Zhong Chen[#], Wen-Chao Yang, Jie Zhu, **Lei Wu***, Cross-Coupling Hydrogen Evolution by Visible Light Photocatalysis Toward C(sp²)-P Formation: Metal-free C-H Functionalization of Thiazole Derivatives with Diarylphosphine Oxides, *Organic Letters*, **2016**, *18*, 452-455. (SCI IF: 6.732)
12. Yu Zhang, Mao Mao, Yi-Gang Ji, Jie Zhu, **Lei Wu***, Modular metal-carbon stabilized palladium nanoparticles for the catalytic hydrogenation of N-heterocycles, *Tetrahedron Letters*, **2016**, *57*, 329-332. (SCI IF: 2.347)
11. Yao-Zhong Chen, Ling Zhang, Ai-Min Lu, Fang Yang and **Lei Wu***, α -Allenyl Ethers as Starting Materials for Palladium Catalyzed Suzuki-Miyaura Couplings of Allenylphosphine Oxides with Arylboronic Acids, *Journal of Organic Chemistry*, **2015**, *80*, 673-680. (SCI IF: 4.785)
10. Teng Liu, Yun-Tao Xia, Jie Zhu, Ai-Min Lu, **Lei Wu***, Metal-free synthesis of chlorinated and brominated phosphinoyl 1,3-butadiene derivatives and its synthetic applications, *Tetrahedron Letters*, **2015**, *56*, 6508-6512. (SCI IF: 2.347)
9. Teng Liu, Jie Dong, Shu-Jun Cao, Li-Cheng Guo and **Lei Wu***, Suzuki-Miyaura coupling of phosphinoyl- α -allenic alcohols with arylboronic acids catalyzed by a palladium complex "on water": an efficient method to generate phosphinoyl 1,3-butadienes and derivatives, *RSC Advances*, **2014**, *4*, 61722-61726. (SCI IF: 3.708)

8. 季益刚, 吴磊*, 范青华*, 金属/金属氧化物纳米粒子在不对称氢化和氢转移反应中的应用研究进展, *化学学报*, **2014**, 72, 798-808. (综述约稿, SCI IF: 0.874)
7. Lei Wu*, Immobilized Catalysts for Organic Synthesis: Homogeneous & Heterogeneous, *Current Organic Chemistry*, **2013**, 17, 1235-1235 (Editorial Material).
6. Lei Wu*, Yu Zhang and Yi-Gang Ji, Homogeneous Recyclable Catalysts Based on Metal Nanoparticles for Organic Synthesis (Invited Review). *Current Organic Chemistry*, **2013**, 17, 1288-1302. (SCI IF: 3.064)
5. Yan-fei Wang*, Zhanmin Xiao, Lei Wu*, Metal-nanoparticles Supported on Solid as Heterogeneous Catalysts, *Current Organic Chemistry*, **2013**, 17, 1325-1333. (SCI IF: 3.064)
4. Lei Wu*, Xiao Zhang, Qing-Qing Chen, An-Kun Zhou, A novel copper-catalyzed reductive coupling of N-tosylhydrazones with H-phosphorus oxides, *Organic & Biomolecular Chemistry*, **2012**, 10, 7859-7862. (SCI IF: 3.696)
3. Lei Wu*, Xiǎo Zhang and Zhimin Tao, A Mild and Recyclable Nano-sized Catalyst for the Stille Reaction in Water, *Catalysis Science & Technology*, **2012**, 2, 707-710. (SCI IF: 3.575)
2. Lei Wu*, A Facile Tandem Reactions to Access β -Hydroxy- α , α -difluoroketone Derivatives Catalyzed by Titanocene Dichloride/Magnesium. *Journal of Fluorine Chemistry*, **2011**, 132, 367-372. (SCI IF: 2.033)
1. Lei Wu*, Jie Ling, Zong-Quan Wu, a Highly Active and Recyclable Catalyst: Phosphine Dendrimer-Stabilized Nickel Nanoparticles for the Suzuki Coupling Reaction. *Advanced Synthesis & Catalysis*, **2011**, 353, 1452-1456. (SCI IF: 6.048)

第一作者研究论文:

4. **Lei Wu**, Yan-Mei He, Qing-Hua Fan*, Controlled Reversible Anchoring of η^6 -Arene/TsDPEN-Ru(II) Complex onto Magnetic Nanoparticles: A New Strategy for Catalyst Separation and Recycling. *Advanced Synthesis & Catalysis*, **2011**, 353, 2915-2919. (SCI IF: 6.048)
3. **Lei Wu**, Jyotsana Lal, Karen A. Simon, Erik A. Burton and Yan-Yeung Luk*, Non-Amphiphilic Assembly in Water: Polymorphic Nature, Thread Structure and Thermodynamic Incompatibility, *Journal of the American Chemical Society*, **2009**, 131, 7430-7443. (SCI IF: 9.023)
2. **Lei Wu**, Zhi-Wei Li, Feng Zhang, Yan-Mei He, Qing-Hua Fan*, Air-Stable and Highly Active Dendritic Phosphine Oxide-Stabilized Palladium Nanoparticles: Preparation, Characterization and Applications in the Carbon-Carbon Bond Formation and Hydrogenation Reactions, *Advanced Synthesis & Catalysis*, **2008**, 350, 846-862. (SCI IF: 5.187)
1. **Lei Wu**, Bao-Lin Li, Yi-Yong Huang, Hai-Feng Zhou, Yan-Mei He, Qing-Hua Fan*, Phosphine Dendrimer-Stabilized Palladium Nanoparticles, a Highly Active and Recyclable Catalyst for the Suzuki-Miyaura Reaction and Hydrogenation. *Organic Letters*, **2006**, 8, 3605. (SCI IF: 5.128)

合作文章:

9. Karen A. Simon, Gauri Shetye, Ulrich English, **Lei Wu** and Yan-Yeung Luk*, Noncovalent Polymerization of Mesogens

Crystallizes Lysozyme: Correlation between Nonamphiphilic Lyotropic Liquid Crystal Phase and Protein Crystal Formation, *Langmuir*, **2011**, *17*, 10901-10906.

8. An-Kun Zhou, Lei Wu, Da-Zhi Li, Qing-Qing Chen, Xiao Zhang, A Novel Metal-free Reductive Esterification of N-Tosylhydrazones with Carboxylic Acids, *Chinese Journal of Chemistry*, **2012**, *30*, 1862-1866.

7. Karen A. Simon, Erik A. Burton, Fei Cheng, Nisha Varghese, Eric R. Falcone, Lei Wu and Yan-Yeung Luk*, Controlling Thread Assemblies of Pharmaceutical Compounds in Liquid Crystal Phase by Using Functionalized Nanotopography. *Chem. Mater.*, **2010**, *22*, 2434.

6. Yan-Yeung Luk, Lei Wu, Jyotsana Lal, Karen A. Simon, Erik A. Burton, Noncovalent polymer assembly in water and their applications in materials fabrication, *ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY*, **2010**, *240*, 818-ORGN.

5. Sri Kamesh Narasimhan, Deborah J. Kerwood, Lei Wu, Jun Li, Rosina Lombardi, Teresa B. Freedman* and Yan-Yeung Luk*, Induced Folding by Chiral Non-Planar Aromatics. *J. Org. Chem.*, **2009**, *74*, 7023.

4. Shuyu Hou, Erik A. Button, Ricky Lei Wu, Yan-Yeung Luk, Dacheng Ren, Prolonged control of patterned biofilm formation by bio-inert surface chemistry, *Chem. Commun.* **2009**, 1207-1209.

3. Bao-Lin Li, Lei Wu, Yan-Mei He, Qing-Hua Fan, The Synthesis and Properties of Iridium(III)-Cored Dendrimers with Carbazole Peripherally Functionalized β -Diketonato Dendrons. *Dalton Transactions*, **2007**, *20*, 2048.

2. Yi-Yong Huang, Yan-Mei He, Hai-Feng Zhou, Lei Wu, Bao-Lin Li, Qing-Hua Fan, Thermomorphic system with non-fluorous

phase-tagged Ru(BINAP) catalyst: Facile liquid/solid catalyst separation and application in asymmetric hydrogenation, *J. Org. Chem.* **2006**, *71*, 2874-2877.

1. Hai-Feng Zhou, Qing-Hua Fan, Yi-Yong Huang, Lei Wu, Yan-Mei He, Wei-Jun Tang, Lian-Quan Gu, Albert S. C. Chan, Mixture of poly(ethylene glycol) and water as environmentally friendly media for efficient enantioselective transfer hydrogenation and catalyst recycling, *JOURNAL OF MOLECULAR CATALYSIS A-CHEMICAL*, **2007**, *275*, 47-53.