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所受教育 职称职位 主持项目 研究领域 讲授课程 获得奖励 发表论文 会议论文 专利 论著 返

## 所受教育

- 1981年9月 - 1985年7月 安徽师范大学化学系学习，获学士学位
- 1989年9月 - 1992年7月 安徽师范大学有机化学研究所硕士研究生，获理学硕士学位
- 1996年9月 - 1999年8月 香港中文大学化学系博士研究生，获哲学博士学位

## 职称职位

- 1985年7月 - 现在，安徽师范大学助教，讲师，教授（1999年）
- 1999年10月 - 2000年8月，香港中文大学化学系博士后研究员
- 2002年5月 - 现在，中国科学技术大学兼职博士生导师
- 2003年9月 - 现在，安徽师范大学有机化学博士点学科负责人，博士生导师
- 2004年1月 - 现在，安徽省高等学校首批“皖江学者”特聘教授

## 主持项目

1. “新型含中性吡咯配体稀土金属有机配合物的合成方法、成键及性能研究”国家自然科学基金，2014年1月-2015年12月，项目负责人（21372010）。
2. “新颖稀土有机化合物的合成和应用研究”，国家重点基础研究发展计划（973计划），2012年1月-2013年12月，项目学术骨干（2012CB821600）。
3. “稀土金属胺基配合物引发的二级胺脱氢反应及应用研究”，国家自然科学基金面上项目，2011年1月-2013年12月，项目负责人（21072004）
4. “稀土金属胺基配合物引发的二级胺氮原子邻位饱和碳氢键活化反应研究”，教育部博士点基金（博导类）2011年1月-2013年12月（20103424110001）

## 研究领域

1. 金属有机化合物合成方法学
2. 有机合成
3. 烯烃转化反应催化剂
4. 新型稀土金属-氮键反应

## 讲授课程

1. 有机化学
2. 金属有机化学

## 获奖与荣誉

1. 叶钟文，王绍武，余永飞，等，“稀土金属有机化学的研究-合成、结构与性质”，1996年国家教委科技进步一等奖
2. 王绍武，马怀柱，叶钟文，沈富仁，等，“稀土金属配合物的研究-合成、性质与结构”，2000年安徽省自然科学二等奖
3. 王绍武，叶钟文，沈富仁，等，“镧系金属配合物的研究-合成、性质与结构”，1998年安徽省高等学校科技进步一等奖
4. 2003年12月获“安徽省优秀青年科技创新奖”

5. 2004年, 入选教育部“新世纪优秀人才支持计划”, 教技函[2005]35号
6. 2006年9月, 入选“新世纪百千万人才工程”国家级人选, 国人部发[2006]96号
7. 2012年, 享受国务院特殊津贴

## ● 代表性论文

1. Zhijun Feng, Xiancui Zhu, Shaoyin Wang, **Shaowu Wang**,\* Shuangliu Zhou, Yun Wei, Guangchao Zhang, Baojia Deng, Xiaolong Mu, “Synthesis, Structure and Reactivity of Lanthanide Complexes Incorporating Indolyl Ligands in Novel Hapticities” *Inorg. Chem.* **2013**, 52(16), 9549-9556.
2. Fenhua Wang, **Shaowu Wang**,\* Xiancui Zhu, Shuangliu Zhou,\* Hui Miao, Xiaoxia Gu, Yun Wei, and Qingbing Yuan, “Novel Lanthanide Amides Incorporating Neutral Pyrrole Ligand in a Constrained Geometry Architecture: Synthesis, Characterization, Reaction, and Catalytic Activity” , *Organometallics* **2013**, 32, 3920-3931.
3. Shuangliu Zhou,\* Zhangshuan Wu, Lingmin Zhou, **Shaowu Wang**,\* Lijun Zhang, Xiancui Zhu, Yun Wei, Jinhua Zhai, Ji Wu, “Controlled Synthesis of Racemic Indenyl Rare-Earth Metal Complexes via the Cooperation between the Intramolecular Coordination of Donor Atoms and a Bridge” *Inorg. Chem.* **2013**, 52(11), 6417-6426.
4. Shaoyin Wang, Zhuo Chai, Shuangliu Zhou, **Shaowu Wang**,\* Xiancui Zhu, and Yun Wei, “A Novel Lewis Acid-Catalyzed [3+3]-Annulation Strategy for the Syntheses of Tetrahydro- $\beta$ -Carbolines and Tetrahydroisoquinolines” *Org. Lett.* **2013**, 15, 2628-2631.
5. Qinghai Li, Shuangliu Zhou,\* **Shaowu Wang**,\* Xiancui Zhu, Lijun Zhang, Zhijun Feng, Liping Guo, Fenhua Wang, Yun Wei, “Dehydrogenation of Secondary Amines: Synthesis, and Characterization of Rare-Earth Metal Complexes Incorporating Imino- or Amido-Functionalized Pyrrolyl Ligands” . *Dalton Trans.* **2013**, 42, 2861-2869.
6. Xiancui Zhu, Shuangliu Zhou, **Shaowu Wang**,\* Yun Wei, Lijun Zhang, Fenhua Wang, Shaoyin Wang, and Zhijun Feng, “Rare-earth metal complexes having an unusual indolyl-1,2-dianion through C-H activation with a novel  $\eta^1:(\mu_2-\eta^1:\eta^1)$  bonding with metals” *Chem. Commun.* **2012**, 48, 12020-12022.
7. Shuangliu Zhou, Zhangshuan Wu, Jiewei Rong, **Shaowu Wang**,\* Gaosheng Yang, Xiancui Zhu, Lijun Zhang, Highly Efficient Hydrophosphonylation of Aldehydes and Unactivated Ketones Catalyzed by the Methylene-Linked Pyrrolyl Rare Earth Metal Amido Complexes” *Chem. Eur. J.* **2012**, 18(9), 2653 - 2659.
8. Xiancui Zhu, **Shaowu Wang**,\* Shuangliu Zhou, Yun Wei, Lijun Zhang, Fenhua Wang, Zhijun Feng, and Xiaolong Mu, Lanthanide Amido Complexes Incorporating Amino-Coordinate-Lithium Bridged Bis(indolyl) Ligands: Synthesis, Characterization and Catalysis for Hydrophosphonylation of Aldehydes and Aldimines” . *Inorg. Chem.* **2012**, 51(13), 7134-7143.
9. Shuangliu Zhou, Hengyu Wang, **Shaowu Wang**,\* Lijun Zhang,\* Xiancui Zhu, Yun Wei, Fenhua Wang, Zhijun Feng, Xiaoxia Gu, Song Yang, and Hui Miao, “Synthesis, Characterization of Organolanthanide Complexes with Calix[4]-pyrrolyl Ligand and Catalytic Activity towards Hydrophosphonylation of Unactivated Ketones” *Organometallics* **2012**, 31(5), 1696-1705.
10. Qinghai Li, Jiewei Rong, **Shaowu Wang**,\* Shuangliu Zhou, Lijun Zhang, Xiancui Zhu, Fenhua Wang, Song Yang, Yun Wei, “Redox Chemistry between Europium(III) Amide and Pyrrolyl-Functionalized Secondary Amines. Synthesis and Structural Characterization of Lithium and Novel Lanthanide Complexes Incorporating Functionalized Pyrrolyl Ligands” *Organometallics* **2011**, 30, 992-1001.
11. Lijun Zhang,\* Jing Xia, Qinghai Li, Xihong Li, and **Shaowu Wang**,\* “Fast Synthesis of Hydrazine and Azo Derivatives via Oxidation of the Rare-Earth Metal-Nitrogen Bonds” *Organometallics* **2011**, 30(3), 375-378.
12. Shuangliu Zhou, Shihong Wu, Hong Zhu, **Shaowu Wang**,\* Xiancui Zhu, Lijun Zhang, Gaosheng Yang, Daohui Cui, Hengyu Wang, “Synthesis, structure, and catalytic activity of alkali-metal-free bent-sandwiched lanthanide amido complexes with calix[4]-pyrrolyl ligands” *Dalton Trans.* **2011**, 40 (37), 9447 - 9453.
13. Tuan-Jie Meng, Yimin Hu,\* and **Shaowu Wang**,\* “Efficient Construction of Five-membered Aromatic and Nonaromatic Heterocycles from 1,6-Enynes by a Palladium-Catalyzed Domino Coupling/Cycloisomerization Process” *J. Org. Chem.* **2010**, 75, 582-588.
14. Yimin Hu,\* Yuan Qu, Fenghua Wu, Jinghan Gui, Yun Wei, Qiong Hu, and **Shaowu Wang**,\* “Tuned C- H Functionalization to Construct Aza-Podophyllotoxin/Aza-Conidendrin Derivatives by Means of Domino Cyclization” , *Chem. Asian J.* **2010**, 5, 309-314.
15. Chao Liu, Shuangliu Zhou,\* **Shaowu Wang**,\* Lijun Zhang and Gaosheng Yang, “Rare Earth Metal Bis(trimethylsilyl)amide Complexes Bearing Pyrrolyl-methylamide Ligand. Synthesis, Structure, and Catalytic Activity towards Guanylation of Amines” *Dalton Trans.* **2010**, 39, 8994-8999.
16. Erhong Hao,\* Zhaoyun Wang, Lijuan Jiao and **Shaowu Wang**,\* ““Click” tetradentate ligands” , *Dalton Trans.* **2010**, 39, 2660-2666.
17. Xiancui Zhu, Jiayi Fan, Yunjun Wu, **Shaowu Wang**,\* Lijun Zhang, Gaosheng Yang, Yun Wei, Chengwei Yin, Hong Zhu, Shihong Wu, and Hongtao Zhang, “Synthesis, Characterization, Selective Catalytic Activity, and Reactivity of Rare Earth Metal Amides with Different Metal-Nitrogen Bonds” *Organometallics* **2009**, 28, 3882-3888.

18. Yunjun Wu, **Shaowu Wang**,\* Xiancui Zhu, Gaosheng Yang, Yun Wei, Lijun Zhang, and Hai-bin Song, "Synthesis, Characterization, and Catalytic Activity of Rare Earth Metal Amides Supported by Diamido Ligand with a CH<sub>2</sub>SiMe<sub>2</sub> Link" *Inorg. Chem.* **2008**, 47, 5503-5511.
19. Yimin Hu,\* Fengfa Song, Fenghua Wu, Dong Cheng, and **Shaowu Wang**,\* "An Efficient Construction of Tri- and Tetracyclic Heterocycles from Linear 1,6-Dienes by Domino Reaction" *Chem. Eur. J.* **2008**, 14, 3110.
20. Qinghai Li, **Shaowu Wang**,\* Shuangliu Zhou, Gaosheng Yang, Xiancui Zhu, and Yuyu Liu "Highly Atom Efficient Guanylation of both Aromatic and Secondary Amines Catalyzed by the Simple Lanthanide Amides" *J. Org. Chem.* **2007**, 72, 6763-6767.
21. Shuangliu Zhou, **Shaowu Wang**,\* Gaosheng Yang, Qinghai Li, Lijun Zhang, Zijian Yao, Zhangkai Zhou, and Hai-bin Song "Synthesis, Structure and Diverse Catalytic Activities of Ethylenebis(indenyl)lanthanide(III) Amides on N-H, C-H Add to Carbodiimides and  $\epsilon$ -Caprolactone Polymerization" *Organometallics* **2007**, 26, 3755-3761.
22. **Shaowu Wang**,\* Xinliang Tang, Andres Vega, Jean-Yves Saillard,\* Shuangliu Zhou, Gaosheng Yang, Wei Yao, Yun Wang "Coordination and Reactivity Diversity of *N*-Piperidineethyl-Functionalized Indenyl Ligands: Synthesis, Structure, Theoretical Calculation, and Catalytic Activity of Organolanthanide Complexes with the Ligands" *Organometallics* **2007**, 26, 1512-1522.
23. Yongyong Wu, Yazhu Zhang, Menglong Yu, Gang Zhao,\* **Shaowu Wang**,\* "Highly Efficient and Reusable Dendritic Catalysts Derived from *N*-Propylsulfonamide for the Asymmetric Direct Aldol Reaction in Water" *Org. Lett.* **2006**, 8, 4417-4420.
24. **Shaowu Wang**,\* Xinliang Tang, Andres Vega, Jean-Yves Saillard,\* Enhong Sheng, Gaosheng Yang, Shuangliu Zhou, and Zixiang Huang, "Experimental and Theoretical Evidence for the First Example of an Organolanthanide(II) Compound Having an Indenyl Ligand Bonded to the Metal through the Benzo Ring in  $\eta^4$  Hapticity" *Organometallics* **2006**, 25, 2401.
25. Lijun Zhang, **Shaowu Wang**,\* Shuangliu Zhou, Gaosheng Yang, Enhong Sheng, "Cannizzaro-Type Disproportionation of Aromatic Aldehydes to Amides and Alcohols by Using Either a Stoichiometric Amount or a Catalytic Amount of Lanthanide Compounds" *J. Org. Chem.* **2006**, 71, 3149-3153.
26. Meihua Xie,\* Jialiang Wang, Xiaoxia Gu, Ying Sun, **Shaowu Wang**,\* Highly Regio- and Stereoselective Synthesis of Tetrasubstituted Olefins by Three-Component Tandem Reaction of Allylzinc Bromide, Acetylenic Sulfone and Halohydrocarbon" *Org. Lett.* **2006**, 8, 431-434.
27. Lijun Zhang, **Shaowu Wang**,\* Enhong Sheng, Shuangliu Zhou, "A solvent-free synthesis of  $\alpha,\alpha'$ -bis(substituted benzylidene) cycloalkanones catalyzed by lanthanide amides [(Me<sub>3</sub>Si)<sub>2</sub>]<sub>3</sub>Ln( $\mu$ -Cl)Li(THF)<sub>3</sub> under microwave irradiation" *Green Chem.* **2005**, 7, 683-686.
28. Kehua Zhang, Wu Zhang, **Shaowu Wang**,\* Enhong Sheng, Gaosheng Yang, Meihua Xie, Shuangliu Zhou, Yan Feng, Lili Mao, and Zixiang Huang, "Homolysis of the Ln-N (Ln = Yb, Eu) bond. Synthesis, structural characterization and catalytic activity of ytterbium(II) and europium(II) complexes with methoxyethyl functionalized indenyl ligands" *Dalton Trans.* **2004**, 1029-1037.
29. **Shaowu Wang**,\* Shuangliu Zhou, Enhong Sheng, Meihua Xie, Kehua Zhang, Lin Cheng, Yan Feng, Lili Mao, and Zixiang Huang, "Homolysis of the Eu-N Bond. Synthesis, Structural characterization, and Catalytic Activity of Novel Europium(II) Complexes" *Organometallics* **2003**, 22, 3546-3552.
30. Enhong Sheng, **Shaowu Wang**,\* Gaosheng Yang, Shuangliu Zhou, Kehua Zhang, Lin Cheng, and Zixiang Huang, "A New Heteroatom Coordination Promoted Homolysis of Yb-N bond. Synthesis and Characterization of a New Class of Ytterbium(II) and Ytterbium(III) Complexes with Indenyl and Amido Ligands, and Catalytic Activities of Ytterbium(II) complexes" *Organometallics* **2003**, 22, 684-692.

#### ● 国际会议邀请报告

1. Fenghua Wang, Shuangliu Zhou, Xiancui Zhu, Zhijun Feng, Guangchao Zhang, **Shaowu Wang**\*, "Neutral Pyrrole Supported Lanthanide Amides as Catalysts for C-P and C-C Bond Construction", 15<sup>th</sup> Asian Chemical Congress, Aug. 19-23, 2008, Singapore, **Invited Lecture**.
2. Shaowu Wang, "Organo Rare-Earth Metal Amides as Highly Efficient Catalysts for C-P Bond Formation" 12<sup>th</sup> International Symposium for Chinese Organic Chemistry, **Invited Lecture**, Aug. 19 - 22, 2012, Lanzhou, China.
3. Shaowu Wang, "Development of New Rare-Earth Metal Catalysts for Highly Efficient Hydrophosphonylation of Carbonyl Derivatives and Imines", 8<sup>th</sup> SINO-US Chemistry Professor Conference, **Invited Lecture**, July 1-4, 2012, Kunming, China.
4. Shaowu Wang, "Development of New Reactivity of Rare-Earth Metal Amides with Functionalized Indoles or Pyrroles: Catalytic Applications of New Lanthanide Complexes Incorporating Functionalized Pyrrolyl and Indolyl Ligands" International Symposium on Chemistry at Zhengzhou University, **Invited Lecture**, Sept. 17-18, 2012, Zhengzhou, China.

5. Shaowu Wang, “Dehydrogenation Reaction of Secondary Amines Initiated by Lanthanide Amides—Synthesis and Applications of Organometallics with Heterocyclic Ligands” *2<sup>nd</sup> Bilateral Sino-Ireland Symposium on Frontiers in Synthetic Chemistry*, Shanghai, June 27 - 28, **2011. Invited lecture.**
6. Shuangliu Zhou, Qinghai Li, Shaoyin Wang and Shaowu Wang,\* “Syntheses of Organometallic Complexes Incorporating Imino-Functionalized Pyrrolyl or Indolyl Ligands through Dehydrogenation of Secondary Amines” *The 7<sup>th</sup> Sino-US Chemistry Professors Conference: Organic Chemistry & Chemical Biology*, Guiyang, June 28 - 30, **2011. Invited lecture.**
7. Qinghai Li, Xiancui Zhu, **Shaowu Wang,\*** “Lanthanide Amides Initiated C-H Bond Activation” , *2010 International Symposium on Organometallic Chemistry*, Hong Kong, July 16-17, 2010, **Invited Lecture.**
8. **Shaowu Wang,\*** “Applications of Lanthanide Amides as Versatile Catalysts/Reagents for Synthesis” The 5<sup>th</sup> Nanjing University - Hokkaido University Joint Symposium - Progress in Advanced Chemistry, Nov. 8-11, 2009, Nanjing-Anhui, China, **Invited Lecture.**
9. **Shaowu Wang,\*** Yunjun Wu, et al, “Selective Reactivity of Lanthanide Amides with different Lanthanide Metal-Nitrogen Bonds and the Catalytic Activity of the complexes” , **Oral Presentation**, 9<sup>th</sup> international symposium on green chemistry in China, Hefei, China, May12-14, **2008.**

**Shaowu WANG**

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