

<b><u>基本信息</u></b>	
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学术兼职	
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<b><u>教育背景</u></b>	
1998.02-2001.07	天津大学，工业催化专业，工学博士
1995.08-1998.01	天津大学，高分子材料与工程专业，工学硕士
1991.09-1995.07	天津大学，高分子化工专业，工学学士
<b><u>工作履历</u></b>	
2020.03-至今	北京理工大学化学与化工学院，副教授/副院长
2019.03-2020.02	北京理工大学化学与化工学院，副教授/院长助理
2016.06-2019.02	北京理工大学化学与化工学院，副教授/能源化工系主任/专业责任教授/化工实验教学中心教学主任
2004.06-2016.05	北京理工大学化工与环境学院，副教授/能源化工系副主任
2001.08-2004.05	清华大学，化学工程系，博士后
<b><u>研究方向</u></b>	
1.	新型催化材料设计与制备
2.	绿色合成过程与工艺
3.	新型反应器设计与开发
4.	能源化工
<b><u>荣誉奖励</u></b>	
1.	北京理工大学“师德先进个人”（2017.12）

2.	北京理工大学优秀教育教学成果奖二等奖（2017.12）
3.	北京理工大学“三育人先进个人”（2013.09）
<b><u>承担项目</u></b>	
1.	新型磁性负载离子液体聚合物刷水相催化三组分一锅反应合成 4H-吡喃类杂环化合物，国家自然科学基金资助项目（21576025），2016.01-2019.12，77 万元，主持
2.	磁性介孔结构型超细粒子负载离子液体催化制备生物柴油研究，国家自然科学基金资助项目（20976013），2010.01-2012.12，33 万元，主持
3.	可控核壳型磁性纳米复合光催化材料基础研究，国家自然科学基金资助项目（20506002），2006.01-2008.12，23 万元，主持
4.	选择性渗透 VOCs 的化工分离新膜材料多层次微结构设计性能调控制备，国家自然科学基金项目（21736001），2018.01-2022.12，354 万元，参与
5.	基于 C5-C12 高性能燃料技术的合作研究，国家国际科技合作专项项目（2012DFR40240），2012.7-2015.7，653 万元，参与
6.	温敏型双亲性离子液体酸碱催化剂催化制备生物柴油的研究，国家自然科学基金资助项目（20706006），2008.01-2010.12，17 万元，参与
7.	4000 吨/年对叔丁基苯甲酸连续化生产技术开发，横向项目（202021041005A），2020.08-2022.08，300 万元，主持
8.	3 万吨/年车用二甲醚生产工艺技术开发及其催化剂生产，横向项目（20131041023），2013.9-2014.9，50 万元，主持
9.	含碘氢碘酸浓缩精馏工艺和设备的研发，横向项目（20121041019），2012.09-2013.12，18 万元，主持
10.	硫酸和氢碘酸浓缩精馏工艺和设备的研发，横向项目（20111041007），2011.05-2012.09，15 万元，主持
<b><u>研究成果</u></b>	
<p>以传统能源、生物质、太阳能等为研究对象，二甲醚、生物柴油、太阳能等新能源转化与利用为研究目标，开展了新型催化材料设计与制备、绿色合成过程与工艺、新型反应器设计与开发等方面研究工作。先后主持国家自然科学基金项目 3 项、世界银行援助项目 1 项，承担企业合作项目 10 余项；参与国家自然科学基金项目、国际科技合作项目等 3 项。迄今在国内外学术刊物及会议上发表学术论文 100 余篇，其中 SCI 收录 40 余篇，EI 收录</p>	

20 余篇，获授权专利 5 项。	
1.	基于二甲醚、生物柴油合成等过程，成功开发了高活性、高选择性和稳定性固体酸和离子液体催化剂，在此基础上开发了万吨级甲醇基燃料级二甲醚产业化生产工艺技术、气雾剂和燃料级二甲醚联合产业化生产工艺技术，以天然气基合成气为原料的千吨级燃料级二甲醚产业化工程技术，以及甲醇基二甲醚燃料生产与锅炉供热一体化系统。
2.	以 $\gamma$ -Al <sub>2</sub> O <sub>3</sub> 为载体，开发了高活性、高选择性和高稳定性的烟气基 SO <sub>2</sub> 催化还原制单质硫用催化剂 CoMoS <sub>x</sub> / $\gamma$ -Al <sub>2</sub> O <sub>3</sub> 和 JP-10 合成催化剂 NiMo/ $\gamma$ -Al <sub>2</sub> O <sub>3</sub> ，实现工业化生产。
3.	创新性提出了利用微乳液界面溶胶凝胶过程制备形貌、尺寸和壳层可控的核壳结构型纳米复合材料的新方法，成功开发了高活性、可回收磁性纳米催化剂制备技术和磁分离—催化耦合反应器。
4.	将离子液体、聚合物刷和磁性纳米粒子相结合，创新性设计出磁性纳米粒子负载离子液体聚合物刷催化剂，在水相催化合成 4H-吡喃类杂环化合物中呈现出优异的催化活性和循环使用性。
5.	将钴化合物与纳米碳材料相结合，制备了中空钴铁氧体/碳纳米管、钴硫化物/石墨烯等电催化材料，用于染料敏化太阳能电池对电极材料，取得了代替金属铂的优异特性。

### 代表性论文

1.	Fang Zhuqing, Shi Daxin*, Lin Na, Li Airu, Wu Qin, Wang Qiqi, Zhao Yun, Feng Caihong, Jiao Qingze Jiao, Li Hansheng*. Probing the synergistic effect of Mo on Ni-based catalyst in the hydrogenation of dicyclopentadiene. Applied Catalysis A, General, 2019,574:60-70
2.	Li Yongjian, Liu Xiufeng, Li Hansheng*, Shi Daxin, Jiao Qingze, Zhao Yun, Feng Caihong, Bai Xiaoping, Wang Hongxia, Wu Qin*. Rational design of metal organic framework derived hierarchical structural nitrogen doped porous carbon coated CoSe/nitrogen doped carbon nanotubes composites as a robust Pt-free electrocatalyst for dye-sensitized solar cells. Journal of Power Sources,2019,422:122-130
3.	Ren Yujing, Li Hansheng*, Yang Wang, Shi Daxin, Wu Qin, Zhao Yun, Feng Caihong, Liu Hongbo, Jiao Qingze*. Alkaline Ionic Liquids Immobilized on Protective Copolymers Coated Magnetic Nanoparticles: An Efficient and Magnetically Recyclable Catalyst for Knoevenagel Condensation. Industrial & Engineering Chemistry Research, 2019, 58(8): 2824-2834
4.	Yuan Hong, Liu Jia, Li Hansheng*, Li Yongjian, Liu Xiufeng, Shi Daxin, Wu Qin, Jiao Qingze*. Graphitic carbon nitride quantum dots decorated three-dimension graphene as an efficient metal-free

	electrocatalyst for triiodide reduction. Journal of Materials Chemistry A, 2018, 6:5603-5607
5.	Yuan Hong, Liu Jia, Li Hansheng*, Su Kuo, Liu Xiufeng, Li Yongjian, Shi Daxin, Wu Qin, Zhao Yun, Jiao Qingze*. Rational integration of hierarchical structural CoS <sub>1.097</sub> nanosheets-reduced graphene oxide nanocomposites with enhanced electrocatalytic performance for triiodide reduction. Carbon, 2018, 126: 514-521
6.	Ma Ming, Li Hansheng*, Yang Wang, Wu Qin, Shi Daxin, Zhao Yun, Feng Caihong, Jiao Qingze. Polystyrene Nanometer-Sized Particles Supported Alkaline Imidazolium Ionic Liquids as Reusable and Efficient Catalysts for the Knoevenagel Condensation in Aqueous Phase. Catalysis Letter, 2017, 148(1):134-143
7.	Yuan Hong, Jiao Qingze, Liu Jia, Liu Xiufeng, Li Yongjian, Shi Daxin, Wu Qin, Zhao Yun, Li Hansheng*. Facile synthesis of Co <sub>0.85</sub> Se nanotubes/reduced graphene oxide nanocomposite as Pt-free counter electrode with enhanced electrocatalytic performance in dye-sensitized solar cells. Carbon, 2017, 122: 381-388
8.	Yuan Hong, Liu Jia, Jiao Qingze*, Li Yongjian, Liu Xiufeng, Shi Daxin, Wu Qin, Zhao Yun, Li Hansheng*. Sandwich-like octahedral cobalt disulfide-reduced graphene oxide as an efficient Pt-free electrocatalyst for high-performance dye-sensitized solar cells. Carbon, 2017, 119:225-234
9.	Yuan Hong, Jiao Qingze, Liu Jia, Liu Xiufeng, Yang Haoyi, Zhao Yun, Wu Qin, Shi daxin, Li Hansheng*. Ultrathin-walled Co <sub>9</sub> S <sub>8</sub> nanotube/reduced graphene oxide composite as an efficient electrocatalyst for the reduction of triiodide. Journal of Power Sources, 2016, 336, 132-142
10.	Yuan Hong, Jiao Qingze, Zhang Shenli, Zhao Yun, Wu Qin, Li Hansheng*. <i>In situ</i> chemical vapor deposition growth of carbon nanotubes on hollow CoFe <sub>2</sub> O <sub>4</sub> as an efficient and low cost counter electrode for dye-sensitized solar cells. Journal of Power Sources, 2016, 325, 417-426
11.	Yuan Hong, Jiao Qingze, Zhang Yaping, Zhang Jing, Wu Qin, Zhao Yun, Neerunjun Sneha, Li Hansheng*. Magnetic CoFe <sub>2</sub> O <sub>4</sub> Nanoparticles Supported Basic Poly(Ionic Liquid)s Catalysts: Preparation and Catalytic Performance Comparison in Transesterification and Knoevenagel Condensation. Catalysis Letters, 2016, 146(5): 951-959
12.	Sun Jiahan, Li Hansheng, Song Haoran, Wu Qin*, Zhao Yun, Jiao Qingze. Synthesis of methylal from methanol and formaldehyde catalyzed by Brønsted acid ionic liquids with different alkyl groups. RSC Advances, 2015, 5, 87200-87205
13.	Qin Wu, Weijiao Li, Min Wang, Yu Hao, Tonghua Chu, Jiqing Shang, Hansheng Li*, Yun Zhao, Qingze Jiao. Synthesis of polyoxymethylene dimethyl ethers from methylal and trioxane catalyzed by Brønsted acid ionic liquids with different alkyl groups. RSC Advances, 2015, 5, 57968-57974
14.	Hu Ju, Li Hansheng, Wu Qin*, Zhao Yun, Jiao Qingze. Synthesis of TiO <sub>2</sub> nanowire/reduced graphene oxide nanocomposites and their photocatalytic

	performances. <i>Chemical Engineering Journal</i> , 2015, 263: 144-150
15.	Ding Libing, Li Hansheng, Zhang Yaping, Zhang Kun, Yuan Hong, Wu Qin*, Zhao Yun, Jiao Qingze, Shi Daxin, et al. Basic polymerized imidazolidine-based ionic liquid: An efficient catalyst for aqueous Knoevenagel condensation. <i>RSC Advances</i> , 2015,5: 21415-21421
16.	Wu Qin, Wang Min, Hao Yu, Li Hansheng*, Zhao Yun, Jiao Qingze. Synthesis of Polyoxymethylene Dimethyl Ethers Catalyzed by Bronsted Acid Ionic Liquids with Alkanesulfonic Acid Groups. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53(42): 16254-16260
17.	Liu Jinchao, Jiao Qingze, Cao Wenjuan, Zhao Yun, Li Hansheng. Preparation and magnetic properties of hollow ferrite microspheres by a gas-phase diffusion method in an ionic liquid/H <sub>2</sub> O mixed solution. <i>Journal of Materials Science</i> , 2014, 49(10): 3795-3804
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19.	Wu Qin, Wan Hualin, Li Hansheng*, Song Haoran, Chu Tonghua. Bifunctional temperature-sensitive amphiphilic acidic ionic liquids for preparation of biodiesel. <i>Catalysis Today</i> , 2013, 200:74-79
20.	Li Hansheng*, He Shichao, Ma Ke, Wu Qin, Jiao Qingze, Sun Kening. Micro-mesoporous composite molecular sieves H-ZSM-5/MCM-41 for methanol dehydration to dimethyl ether: Effect of SiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> ratio in H-ZSM-5. <i>Applied Catalysis A</i> , 2013, 450:152-159
21.	Zhen Bin, Jiao Qingze, Zhang Yaping, Wu Qin, Li Hansheng*, Shi Daxin, Li Jiarong. Fast condensation of cyclohexanone with 2-aminobenzonitrile at room temperature catalysed by an N-heterocyclic carbene. <i>Catalysis Communications</i> , 2013, 32:1-4
22.	Zhen Bin, Li Hansheng, Jiao Qingze*, Li Yuan, Wu Qin, Zhang Yaping. SiW12O <sub>40</sub> -Based Ionic Liquid Catalysts: Catalytic Esterification of Oleic Acid for Biodiesel Production. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51(31):10374-10380
23.	Zhen Bin, Jiao Qingze, Zhang Yaping, Wu Qin, Li Hansheng*. Acidic ionic liquid immobilized on magnetic mesoporous silica: preparation and catalytic performance in esterifications. <i>Applied Catalysis A</i> , 2012, 445-446:239-245
24.	Li Hansheng*, Zhang Yaping, Wu Qin, Wang Xitao, Liu Changhao. Preparation and photocatalytic properties of nanometer-sized magnetic TiO <sub>2</sub> /SiO <sub>2</sub> /CoFe <sub>2</sub> O <sub>4</sub> composites. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11(11): 10173-10181
25.	刘哲男, 耿云峰, 石泉, 黎汉生*, 史大昕, 吴芹, 赵芸, 冯彩虹, 矫庆泽. CoMoS <sub>x</sub> / $\gamma$ -Al <sub>2</sub> O <sub>3</sub> 催化剂在还原脱硫中的吸附性能和催化活性. <i>无机化学学报</i> , 2019, 35(1):34-42