基本信息

姓　　名	乔金硕
职　　务	化学化工实验教学中心行政副主任
职　　称	高级实验师/硕士生导师
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教育背景

2004.09-2008.04	哈尔滨工业大学，化学工程与技术专业，工学博士
2002.09-2004.07	哈尔滨工业大学，工业催化专业，工学硕士
1998.09-2002.07	黑龙江科技学院，化学工程与工艺专业，工学学士

工作履历

2019.07-至今	北京理工大学化学与化工学院，高级实验师/化学化工实验教学中心行政副主任
2016.06-2019.06	北京理工大学化学与化工学院，实验师/化工实验教学中心行政主任
2010.09-2016.05	北京理工大学化工与环境学院，实验师
2008.06-2010.09	哈尔滨工业大学土木工程专业博士后流动站，博士后

研究方向

1.	固体氧化物燃料电池
2.	电催化材料设计与制备

荣誉奖励

1.	北京理工大学优秀教育教学成果奖二等奖（2017.12）
2.	青年教师教学基本功比赛 校级三等奖（2017.01）

承担项目

1.	SOFC 纳米金属/层状钙钛矿阳极材料的结构设计及碳的催化氧化机制，国家自然科学基金资助项目（22078022），2021.01-2024.12，64 万元，主持
2.	Ce-Zr 固溶体基直接氧化 SOFC 阳极及积炭消炭机理研究，国家自然科学基金资助项目青年基金（21006015），2011.01-2013.12,19 万元，主持
3.	直接柴油/煤油燃料电池高效发电技术，国防项目（61407210102），2018.11-2020.12,300 万元，参与
4.	表面去合金化三维石墨烯基双功能纳米材料及催化氧化乙醇动力学研究，国家自然科学基金资助项目（21576028），2016.01-2019.12,67 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.	板式脱硝催化剂关键技术及应用研究，北京市培育项目（Z131109002813077），50 万元，2013.07-2014.06，参与

研究成果

从事新能源材料及电化学方向研究工作，主持国家自然科学基金项目 2 项、参与国家自然科学基金项目等 2 项。迄今在国内外学术刊物及会议上发表学术论文 21 篇，其中 SCI 收录 19 篇，EI 收录 2 篇，获授权专利 4 项。

1.	一种 $CuMn_2O_4$/CNT 复合电催化剂的制备方法，201710186378.9。
2.	一种具有双重电催化功能的直接碳燃料电池阳极，ZL201610244227.X
3.	一种用于板式脱硝催化剂的测试夹具，201410302769.4。
4.	一种烟气脱硝催化剂的制备方法及由该方法制备的烟气脱硝催化剂，200810209731.1

代表性论文

1.	**Jinshuo Qiao**，Haitao Chen, Zhenhua Wang, Wang Sun, Haijun Li, and Kening Sun*. Enhancing the Catalytic Activity of $Y_{0.08}Sr_{0.92}TiO_{3-\delta}$ Anodes through in Situ Cu Exsolution for Direct Carbon Solid Oxide Fuel Cells. Industrial & Engineering Chemistry Research 2020, 59, 29, 13105-13112.
2.	**Jinshuo Qiao,** Wenjun Chen, Wenyi Wang, Zhenhua Wang, Wang Sun,Jing Zhang, Kening Sun * The Ca element effect on the enhancement performance of $Sr_2Fe_{1.5}Mo_{0.5}O_{6-d}$ perovskite as cathode for intermediate-temperature solid oxide fuel cells. Journal of Power Sources,2016, 331 : 400-407.
3.	Yang, Guoquan; Feng, Jie; Sun, Wang; Dai, Ningning; Hou, Mingyue; Hao, Xiaoming; **Qiao, Jinshuo*;** Sun, Kening*. The characteristic of strontium-

	site deficient perovskites SrxFe1.5Mo0.5O6-delta (x=1.9-2.0) as intermediate-temperature solid oxide fuel cell cathodes. Journal of Power source, 2014, 268:771-777.
4.	**Jinshuo Qiao**; Ning Wang; Zhenhua Wang; Wang Sun; Kening Sun. Porous bimetallic $Mn_2Co_1O_x$ catalysts prepared by a one-step combustion method for the low temperature selective catalytic reduction of NO_x with NH_3. Catalysis Communications,2015,72:111-115.
5.	**Jinshuo Qiao**, Wenyi Wang, Jie Feng, Wenjun Chen, Minjie He, Zhenhua Wang, Wang Sun, Kening Sun. Synthesis and characterization of $Sr_2Fe_{1.4}Ni_{0.1}Mo_{0.5-x}Nb_xO_{6-\delta}$ (x = 0, 0.05, 0.1, and 0.15) cathodes for solid oxide fuel cells. Ionics (2018) 24:421–428.
6.	Tingting Li, **Jinshuo Qiao,∗**, Minjie He, Zhenhua Wang, Jinsheng Feng, Wang Sun,Kening Sun∗, Xinhua Lai, Xiaoping Bai, Guohua Wang. Mg-doped $La_{0·3}Sr_{0·7}Mn_{0·8}Mg_{0·2}O_{3-\delta}$ cathode as a catalyst for NOx decomposition via H–SOFCs. Ceramics International 46 (2020) 3606–3613
7.	Fang Wang, **Jinshuo Qiao*** , Jun wang, Haitao Wu, Zhenhua Wang, Wang Sun, Kening Sun***.** Multimetallic Core–Bishell Ni@Au@Pd nanoparticles with reduced graphene oxide as an efficient bifunctional electrocatalyst for oxygen reduction/evolution reactions. Journal of Alloys and Compounds, 2019,811:115882
8.	Fang Wang, **Jinshuo Qiao*** , Jun wang, Haitao Wu, Xinyang Yue, Zhenhua Wang, Wang Sun, Kening Sun***.**Reduced graphene oxide supported Ni@Au@Pd core@bishell nanoparticle as highly active bioethanol fuel cells applications**.** Electrochimica Acta 2018,271:1-9.
9.	Fang Wang, **Jinshuo Qiao*** , Haitao Wu, Ji Qi , Wenzhen Li, Zhu Mao, Zhenhua,Wang Sun, David Rooney, Kening Sun***.** Bioethanol as a new sustainable fuel for anion exchange membrane fuel cells with carbon nanotube supported surface dealloyed PtConanocomposite anodes. Chemical Engineering Journal, 2017,317:623-631.
10.	Jia Liu, **Jinshuo Qiao***, Hong Yuan, Jie Feng, Chao Sui, Zhenhua Wang, Wang Sun, Kening Sun*. Ni modified $Ce(Mn, Fe)O_2$ cermet anode for high-performance direct carbon fuel cell. Electrochimica Acta 2017, 232:174–181.
11.	Jia Liu, Hong Yuan, **Jinshuo Qiao***, Jie Feng, Chunming Xu, Zhenhua Wang, Wang Suna and Kening Sun *. Hierarchical hollow nanofiber networks for high performance hybrid direct carbon fuel cells. Journal of Materials Chemistry A, 2017, 5:17216—17220.
12.	Jie Feng, **Jinshuo Qiao***, Wenyi Wang, Zhenhua Wang, Wang Sun, Kening Sun*. Development and performance of anode material based on A-site deficient $Sr_{2-x}Fe_{1.4}Ni_{0.1}Mo_{0.5}O_{6-d}$ perovskites for solid oxide fuel cells. Electrochimica Acta, 2016,215:592-599.
13.	Jie Feng, **Jinshuo Qiao,***, Wang Sun , Peng Yang, Haiyang Li ,Zhenhua Wang , Kening Sun*. Characteristic and preparation of $C_{e0.5}Z_{r0.5O2}$ as the anode support for solid oxide fuel cells by phase inversion technology. International journal of hydrogen energy,2015,40:12784-12789.

14.	Feng, Jie; Yang, Guoquan; Dai, Ningning; Wang, Zhenhua; Sun, Wang; Rooney, David; Qiao, Jinshuo; Sun, Kening. Investigation into the effect of Fe-site substitution on the performance of $Sr_2Fe_{1.5}Mo_{0.5}O_{6-delta}$ anodes for SOFCs, Journal of Materials Chemistry A,2014,2(41):17638-17634.
15.	Dai, Ningning; Wang, Zhenhua; Jiang, Taizhi; Feng, Jie; Sun, Wang; **Jinshuo Qiao***; Rooney, David; Kening Sun*. A new family of barium-doped $Sr_2Fe_{1.5}Mo_{0.5}O_{6-delta}$ perovskites for application in intermediate temperature solid oxide fuel cells. Journal of Power Source, 2014, 268:176-182.
16.	Ningning Dai, Jie Feng, Zhenhua Wang, Taizhi Jiang, Wang Sun, **Jinshuo Qiao*** and Kening Sun*.Synthesis and characterization of B-site Ni-doped perovskites $Sr_2Fe_{1.5\_x}Ni_xMo_{0.5}O_{6\_d}$ (x = 0, 0.05, 0.1, 0.2,0.4) as cathodes for SOFCs. Journal of Materials Chemistry A. 2013,1: 14147 -14153.
17.	Ningning Dai, Zhongliang Lou, Zhenhua Wang, Xiaoxi Liu, Yiming Yan, J**inshuo Qiao***,Taizhi Jiang, Kening Sun*. Synthesis and electrochemical characterization of $Sr_2Fe_{1.5}Mo_{0.5}O_6$-$Sm_{0.2}Ce_{0.8}O_{1.9}$ composite cathode for intermediate-temperature solid oxide fuel cells. Journal of Power Source,2013,234:766-772.
18.	Ningning Dai, Zhenhua Wang, Zhongliang Lou, Yiming Yan, **Jinshuo Qiao***, Jun Peng, Kening Sun*.One-step synthesis of high performance $Sr_2Fe_{1.5}Mo_{0.5}O_{6-e}$-$Sm_{0.2}Ce_{0.8}O_{1.9}$ composite cathode for intermediate-temperature solid oxide fuel cells usinga self-combustion technique. Journal of Power Source, 2012,217: 519-523.
19.	Kening Sun*, Jia Liu, Jie Feng, Hong Yuan, Minjie He, Chunming Xu,Zhenhua Wang, Wang Sun, **Jinshuo Qiao***.Investigation of B-site doped perovskites $Sr_2Fe_{1.4}X_{0.1}Mo_{0.5}O_{6-d}$ (X¼Bi, Al, Mg) as high-performance anodes for hybrid direct carbon fuel cell. Journal of Power Sources, 2017,365: 109-116.
20.	**乔金硕**;王振华;孙旺;孙克宁;李海军. 原位双金属纳米颗粒 YST 复合阳极的构筑及其直接碳催化性能研究。化工学报， 2020,71(9): 4270-4281.
21.	Qiao Jinshuo, Zhang Cuiya , Yin Xiaoju, Sun Kening. Study on performance of transition metal-doped catalysts for DeNOx at low-temperature. Advanced Materials Research Vol. 873 (2014) pp 612-618