基本信息

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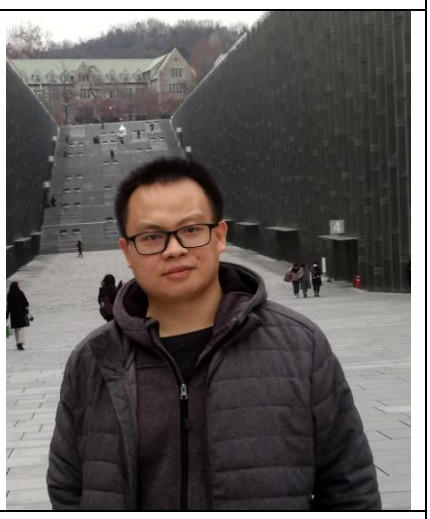

教育背景

2007.09-2012.07	中国科学院福建物质结构研究所，无机化学专业，理学博士

工作履历

2019.09-至今	北京理工大学化学与化工学院，教授
2019.04-2019.09	瑞典斯德哥尔摩大学，研究员
2018.01-2019.04	韩国国立科学技术研究院软物质中心，研究员
2015.10-2017.11	德国马普学会胶体与界面研究所，洪堡学者
2013.06-2015.06	日本产业技术综合研究所，JSPS 研究员
2012.06-2013.06	中国科学院福建物质结构研究所，助理研究员

研究方向

1.	多孔分子笼及其复合物的设计合成与催化性能探究
2.	聚离子液体及其复合(多孔)材料的理性构筑与功能探究

荣誉奖励

1.	北理工特立青年学者 (2018)
2.	Journal of the American Chemical Society Young Investigator (2017)

3.	德国洪堡学者（2015）
4.	日本学术振兴会（JSPS）外国人特别研究员（2013）
5.	宝钢优秀研究生特等奖（2012）
6.	卢嘉锡优秀研究生奖（2012）
7.	中科院优秀毕业生（2012）

承担项目

1.	国家自然科学基金面上项目（**22071008**), 2021-2024，主持
2.	国家自然科学基金青年项目（**52003029**) , 2021-2023，主持
3.	北理工高层次人才启动计划（**3100011181910**), 2019-2025，主持

研究成果

围绕多孔材料的简单、高效制备，结构可调及功能可控等基础科学问题，设计、合成了一系列多孔材料及其复合物，开创了利用剪切应力快速合成晶态材料的全新方法。探索了多孔材料及纳米复合材料在高性能智能响应性催化、智能驱动、智能识别等领域的应用。主持国家自然科学基金项目 2 项、北理工高层次人才科研启动计划项目 1 项。迄今以第一作者/通讯作者身份在 ***Nature***、***Nat. Commun.***、***J. Am. Chem. Soc.***、***Angew. Chem. Int. Ed.***、***Chem. Soc. Rev.***等国际著名期刊杂志发表 SCI 论文 30 余篇，多篇入选 ESI 高被引论文。

课题组招聘

课题组每年招聘博士生、硕士生数名；欢迎优秀博士毕业生加入课题组从事博士后研究。

代表性论文

1.	**Jian-Ke Sun**, Yaroslav I Sobolev (Co-first author), Weiyi Zhang, Qiang Zhuang and Bartosz Grzybowski*, Enhancing crystal growth using polyelectrolyte solutions and shear flow, ***Nature***, 2020, 579, 73-79.
2.	Su-Yun Zhang, Han Miao (Co-first author), He-Min Zhang (Co-first author), Jun-Hao Zhou, Yong-Lei Wang, Weiyi Zhang, Qiang Zhuang, Yu-Jia Zeng, Zhiming Gao, Jiayin Yuan*, and **Jian-Ke Sun***, Accelerating crystallization of open organic materials by poly(ionic liquid)s, ***Angew. Chem. Int. Ed.***, 2020, doi.org/10.1002/anie.202008415, **Very Important Paper (VIP), highlighted by *WileyChem*.**

3.	Su-Yun Zhang, Qiang Zhuang (Co-first author), Miao Zhang, Hong Wang, Zhiming Gao, **Jian-Ke Sun***, and Jiayin Yuan*, Poly(ionic liquid) composites, ***Chem. Soc. Rev.***, 2020, 49, 1726-1755.
4.	Hui-Chun Lee, Tobias Heil, **Jian-Ke Sun*** and Bernhard V. K. J. Schmidt*, Dispersed nano-MOFs via a stimuli-responsive biohybrid system with enhanced photocatalytic performance, ***Mater. Horiz.***, 2019, 6, 802-809.
5.	Su-Yun Zhang, Zdravko Kochovski, Hui-Chun Lee, Yan Lu, Jie Zhang, **Jian-Ke Sun*** and Jiayin Yuan*, Ionic organic cage-encapsulating phase-transferable metal clusters, ***Chem. Sci.***, 2019, 10, 1450-1456.
6.	**Jian-Ke Sun**, Xiao-Dong Yang, Guo-Yu Yang and Jie Zhang*, Bipyridinium derivative-based coordination polymers: from synthesis to materials applications, ***Coord. Chem. Rev.***, 2019, 378, 533-560.
7.	**Jian-Ke Sun,** Weiyi Zhang (Co-first author), Ryan Guterman, Hui-Juan Lin and Jiayin Yuan*, Porous polycarbene-bearing membrane actuator for ultrasensitive weak-acid detection and real-time chemical reaction monitoring, ***Nat. Commun.***, 2018, 9, 1717. **Selected by Nature Research Chemistry Community as "Behind the Paper post".**
8.	**Jian-Ke Sun,** Zdravko Kochovski, Wei-Yi Zhang, Holm Kirmse, Yan Lu, Markus Antonietti, and Jiayin Yuan*, General synthetic route toward highly dispersed metal clusters enabled by poly(ionic liquid)s, ***J. Am. Chem. Soc.***, 2017, 139, 8971-8976. **Selected by JACS Young Investigators Virtual Issue 2017**.
9.	Cheng Chen, **Jian-Ke Sun (Co-first author),** Ya-Jun Zhang, Xiao-Dong Yang, Jie Zhang*, Flexible viologen-based porous framework showing X-ray induced photochromism with single-crystal-to-single-crystal transformation, ***Angew. Chem. Int. Ed.***, 2017, 56, 14458-14462.
10.	**Jian-Ke Sun**, Hui-Juan Lin, Wei-Yi Zhang, Min-Rui Gao, Markus Antonietti and Jiayin Yuan*, A tale of two membranes: from poly(ionic liquid) to metal-organic framework hybrid nanoporous membranes via pseudomorphic replacement, ***Mater. Horiz.***, 2017, 4, 681-687.
11.	**Jian-Ke Sun,** Markus Antonietti, and Jiayin Yuan*, Nanoporous ionic organic networks: from synthesis to materials applications, ***Chem. Soc. Rev.***, 2016, 45, 6627-6656.
12.	**Jian-Ke Sun**, Wen-Wen Zhan, Tomoki Akita, and Qiang Xu*, Toward homogenization of heterogeneous mtal nanoparticle catalysts with enhanced catalytic performance: soluble porous organic cage as a stabilizer and homogenizer, ***J. Am. Chem. Soc.***, 2015, 137, 7063-7066. **Highlighted by *Chemical & Engineering News and JACS Spotlights.***
13.	**Jian-Ke Sun** and Qiang Xu*, Functional materials derived from open framework templates/precursors: synthesis and applications, ***Energy Environ. Sci.***, 2014, 7, 2071-2100.
14.	**Jian-Ke Sun,** Wei Li, Cheng Chen, Cai-Xia Ren, Dan-Mei Pan and Jie Zhang*, Photoinduced bending of large single crystal of 1,2-bis(4-pyridyl)-ethylene-based pyridinium salt powered by [2 + 2] cycloaddition, ***Angew.***

	Chem. Int. Ed., 2013, 52, 6653-6657.
15.	**Jian-Ke Sun**, Cheng Chen, Li-Xuan Cai, Cai-Xia Ren, Bin Tan and Jie Zhang*, Mechanical grinding of a single-crystal metal-organic framework triggered emission with tunable violet-to-orange luminescence, ***Chem.Commun.,*** 2014*,* 50, 15956-15959.
16.	**Jian-Ke Sun**, and Qiang Xu*, From metal–organic framework to carbon: toward controlled hierarchical pore structures via a double-template approach, ***Chem.Commun.,*** 2014, 50*,* 13502-13505.
17.	**Jian-Ke Sun,** Min Ji*, Cheng Chen, Wu-Gen Wang, Peng Wang, Rui-Ping Chen and Jie Zhang*, A charge-polarized porous metal-organic framework for gas chromatographic separation of alcohols from water, ***Chem.Commun.,*** 2013, 49, 1624-1626.
18.	**Jian-Ke Sun,** Li-Xuan Cai, Yong-Juan Chen, Zhao-Hui Li and Jie Zhang*, reversible luminescence switch in a photochromic metal-organic framework. ***Chem.Commun.,*** 2011, 47, 6870-6872.
19.	**Jian-Ke Sun,** Bin Tan, Li-Xuan Cai, Rui-Ping Chen, Jian Zhang and Jie Zhang*, Polycatenation driven self-assembly of nanoporous frameworks based on 1D ribbon of rings: regular structural evolution, interpenetration transformation and photochemical modification, ***Chem. Eur. J.***, 2014, 20, 2488-2498 **(Cover paper)**. **Highlighted by *ChemistryViews.* and *Angewandte Spotlights* (*Angew. Chem. Int. Ed.*, 2014, 53, 2272–2275)**.
20.	**Jian-Ke Sun**, Qing-Xia Yao, Yu-Yang Tian, Lei Wu, Guang-Shan Zhu, Rui-Ping Chen and Jie Zhang*, Borromean-entanglement-driven assembly of porous molecular architectures with anions modified pore space. ***Chem. Eur. J.***, 2012, 18, 1924-1931 **(Frontispiece Paper**).
21.	**Jian-Ke Sun**, Xu-Hui Jin, Li-Xuan Cai and Jie Zhang*, Supramolecular isomer-dependent photochromism and emission color tuning of bipyridinium salts, ***J. Mater. Chem.***, 2011, 21, 17667-17672.
22.	**Jian-Ke Sun**, Peng Wang, Qing-Xia Yao, Yong-Juan Chen, Zhao-Hui Li, Yong-Fan Zhang, Li-Ming Wu and Jie Zhang*, Solvent- and anion-controlled photochromism of viologen-based metal-organic hybrid materials. ***J. Mater. Chem.***, 2012, 22, 12212-12219.
23.	**Jian-Ke Sun**, Ya-Jun Zhang (Co-first author), Gui-Peng Yu, Jie Zhang*, Markus Antonietti, and Jiayin Yuan*, Three birds, one stone – photo-/piezo-/chemochromism in one conjugated nanoporous ionic organic network. ***J. Mater. Chem. C***, 2018, 6, 9065-9070. **Selected as 2018 Journal of Materials Chemistry C HOT Papers&Cover Paper&Journal of Materials Chemistry C top 5% most-read during April-June 2018.**
24.	**Jian-Ke Sun**, and Qiang Xu*, Metal nanoparticles immobilized on carbon nanodots as highly active catalysts for hydrogen generation from hydrazine in aqueous solution, ***ChemCatChem***, 2015, 7, 526-531.
25	**Jian-Ke Sun**, Xu-Hui Jin, Chao Chen and Jie Zhang*, Thermally triggered reversible transformation between parallel staggered stacking and plywood-

	like stacking of 1D coordination polymer chains. ***Inorg. Chem.***, 2010, 49, 7046-7051.
26	**Jian-Ke Sun**, Peng Wang, Cheng Chen, Xue-Jun Zhou, Li-Ming Wu, Yong-Fan Zhang and Jie Zhang*, Charge-distribution-related regioisomerism of photoresponsive metal-organic polymeric chains. ***Dalton Trans.,*** 2012, 41, 13441-13446.
27	**Jian-Ke Sun,** and Jie Zhang*, Functional metal-bipyridinium frameworks: self-assembly and applications, ***Dalton Trans.,*** 2015, 44, 19041-19055.
28	Huijuan Lin, Suyun Zhang (Co-first author), **Jian-Ke Sun***, Markus Antonietti, Jiayin Yuan*, Poly(ionic liquid)s with engineered nanopores for energy and environmental applications. ***Polymer***, 2020, 202, 122640.
29	**Jian-Ke Sun,** Wei Li, Li-Xuan Cai and Jie Zhang*, Structural diversity of the mixed-ligand system Mn-cpdba-2,2′-bpy controlled by temperature. ***CrystEngComm***, 2011, 13, 1550-1556.
30	**Jian-Ke Sun,** Qing-Xia Yao, Zhan-Feng Ju and Jie Zhang*, 2D self-catenated coordination polymer constructed by triple- and double-helical chains. ***CrystEngComm***, 2010, 12, 1709-1711.