个人简介

高庆贺，男，1983 年 6 月出生，2016 年 6 月毕业于华中师范大学，获博士学位。新乡医学院太行青年学者，河南省化学会理事。主持国家重点研发计划子课题 1 项，河南省高等学校重点科研项目 1 项，作为主要成员参与国家自然基金等项目 2 项，指导大学生参与河南省创新课题重点项目 1 项；申请国家发明专利 10 项，已授权 6 项，申请美国专利 1 项。以第一作者或通讯作者在 Organic Letters、Organic Chemistry Frontiers 等顶级学术期刊上发表论文 23 篇，他引次数 1700 余次，h-index 为 24。其中 2 篇入选 ESI 高被引论文，2 篇被 Synfacts 作为亮点文章进行评价，2 篇被 CBG 学术网站做亮点介绍，1 篇被 X-MOL 学术网站做亮点介绍，7 篇被 Nature Index 所收录。形成了具有鲜明特色的碘的金属性催化行为和三级胺的远程活化的研究方向，同时基于此产生新颖的合成设计策略和探索新型合成方法学，并由此探索药物分子高效简捷的合成新方法。

联系方式

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研究方向

- ✓ 有机合成方法学：主要基于碘的金属性催化行为和三级胺的远程活化，建立新颖的合成设计策略，探索新型合成方法高效构筑嘧啶类杂环化合物。
- ✓ 药物合成工艺的开发：主要进行嘧啶类小分子药物的高效简捷的合成和工艺开发。

招生方向

- ✓ 学术学位硕士（学硕）：药物化学
- ✓ 专业学位硕士（专硕）：药物研发与转化

教育经历

- ✓ 2010/09-2016/06，华中师范大学，有机化学专业，理学博士（硕博连读）
- ✓ 2006/09-2010/06，河南师范大学，化学专业，理学学士

工作经历

- ✓ 2016/06-2020/04，新乡医学院，药学院，讲师
- ✓ 2020/04-至今，新乡医学院，药学院，副教授

承担项目

- ✓ 科技部，国家重点研发计划“政府间国际科技创新合作”重点专项项目子课题， 2020-12 至 2023-11，20 万元，在研，主持。
- ✓ 国家自然科学基金委员会，NSFC-河南联合基金，U1704184，特异性靶向 LSD1 小分子降解剂的设计、合成及抗肿瘤活性研究，2018-01 至 2020-12，51 万元，已结题，参加。
- ✓ 国家自然科学基金委员会，面上项目，21472056，基于新型氧杂七元环的重排反应构建芳环骨架结构体及相关开环产物的研究，2015-01 至 2018-12，95 万元，已结题，参加。
- ✓ 河南省科技厅，河南省科技攻关项目，172102310616，双载药位点姜黄素纳米粒缓释制剂研究，2017-01 至 2018-12，已结题，参加。
- ✓ 河南省教育厅，河南省高等学校重点科研项目， 19A350010，基于碘诱导酮肟酯产生亚胺自由基构建氮杂环化合物合成的研究，2019-01 至 2020-12，3 万，已结题，主持。

代表性论文

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- ✓ Yimei Guo, and **Qinghe Gao,*** Recent advances in 3-aminoindazoles as versatile synthons for the synthesis of nitrogen heterocycles, *Org. Biomol. Chem.* **2022**, *20*, 7138–7150.
- ✓ **Qinghe Gao,*** Manman Wu, Le Zhang, Pengju Xu, He Wang, Zhenhua Sun, Lizhen Fang, Yingchao Duan, Suping Bai, Xiangyu Zhou, Mingxin Han, Jixia Zhang, and Jieli Lv,* Open-Air Dual-Diamination of Aromatic Aldehydes: Direct Synthesis of Azolo-Fused 1,3,5-Triazines Facilitated by Ammonium Iodide. *J. Org. Chem.* **2021**, *86*, 17265−17273.
- ✓ **Qinghe Gao**, Zhenhua Sun, Qinfei Xia, Ruonan Li, Wenlong Wang, Siwei Ma, Yixin Chai, Manman Wu, Wei Hu, Péter Ábrányi-Balogh, György M. Keseru˝, and Xinya Han,* Vinylation of α−Aminoazoles with Triethylamine: A General Strategy to Construct Azolo[1,5-*a*]pyrimidines with a Nonsubstituted Ethylidene Fragment. *Org. Lett.* **2021**, *23*, 2664–2669.
- ✓ **Qinghe Gao,*** Manman Wu, Ke Zhang, Ning Yang, Mengting Liu, Juan Li, Lizhen Fang, Suping Bai, and Yongtao Xu.* I_2-Catalyzed Aerobic α,β-Dehydrogenation and Deamination of Tertiary Alkylamines: Highly Selective Synthesis of Polysubstituted Pyrimidines via Hidden Acyclic Enamines. *Org. Lett.* **2020**, *22*, 5645−5649.
- ✓ **Qinghe Gao,*** Xinya Han, Peiyuan Tong, Zhiang Zhang, Haotian Shen, Yanrong Guo, and Suping Bai. Aerobic α,β-C(sp^3)-H Bond Difunctionalization and C-N Bond Cleavage of Triethylamine: Difunctional Ammonium Iodide Enabling the Regioselective Synthesis of 4-Arylpyrimido[1,2-*b*]indazoles. *Org. Lett.* **2019**, *21*, 6074−6078.
- ✓ **Qinghe Gao,*** Zhaomin Liu, Yakun Wang, Xia Wu, Jixia Zhang, and Anxin Wu.* I_2-Triggered Reductive Generation of N-Centered Iminyl Radicals: An Isatin-to-Quinoline Strategy for the Introduction of Primary Amides. *Adv. Synth. Catal.* **2018**, *360*, 1364–1369.
- ✓ **Qinghe Gao**,* Shuang He, Xia Wu, Jingjing Zhang, Suping Bai, Yandong Wu, and Anxin Wu.* Selective access to dipyrazolo-fused pyridines via formal [3 + 2 + 1] heteroannulation of methyl ketones with pyrazol-5-amines. *Org. Chem. Front.* **2018**, *5*, 765–768.

- ✓ **Qinghe Gao,*** Huijuan Yan, Manman Wu, Jiajia Sun, Xiqing Yan, and Anxin Wu. Direct synthesis of 2-methylpyridines via I_2-triggered [3 + 2 + 1] annulation of aryl methyl ketoxime acetates with triethylamine as the carbon source. *Org. Biomol. Chem.* **2018**, *16*, 2342–2348.
- ✓ **Qinghe Gao,*** Yakun Wang, Qianqian Wang, Yanping Zhu, Zhaomin Liu, and Jixia Zhang. I_2-Triggered N-O cleavage of ketoxime acetates for the synthesis of 3-(4-pyridyl)indoles. *Org. Biomol. Chem.* **2018**, *16*, 9030–9037.
- ✓ Yongtao Xu,* Zihao He, Min Yang, Yunlong Gao, Linfeng Jin, Meiting Wang, Yichao Zheng, Xiaoyuan Lu, Songjie Zhang, Chang Wang, Zongya Zhao, Junqiang Zhao, **Qinghe Gao*** and Yingchao Duan*. Investigating the Binding Mode of Reversible LSD1 Inhibitors Derived from Stilbene Derivatives by 3D-QSAR, Molecular Docking, and Molecular Dynamics Simulation. *Molecules*, **2019**, *24*, 4479.
- ✓ Xia Wu, Jingjing Zhang, Shan Liu, **Qinghe Gao,*** and Anxin Wu.* An Efficient Synthesis of Polysubstituted Pyridines via Csp^3-H Oxidation and C-S Cleavage of Dimethyl Sulfoxide. *Adv. Synth. Catal.* **2016**, *358*, 218–225.
- ✓ **Qinghe Gao**, Shan Liu, Xia Wu, Jingjing Zhang, and Anxin Wu.* Direct Annulation of Hydrazides to 1,3,4-Oxadiazoles via Oxidative C(CO)–C(methyl) Bond Cleavage of Methyl Ketones. *Org. Lett.* **2015**, *17*, 2960−2963.
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- ✓ **Qinghe Gao**, Shan Liu, Xia Wu, Jingjing Zhang, and Anxin Wu.* Coproduct Promoted Povarov Reaction: Synthesis of Substituted Quinolines from Methyl Ketones, Arylamines, and α-Ketoesters. *J. Org. Chem.* **2015**, *80*, 5984−5991.
- ✓ Shan Liu, Hailing Xi, Jingjing Zhang, Xia Wu, **Qinghe Gao,*** and Anxin Wu.* Organopromoted direct synthesis of 6-iodo-3-methylthioimidazo[1,2-*a*]pyridines via convergent integration of three self-sorting domino sequence. *Org. Biomol. Chem.* **2015**, *13*, 8807–8811.
- ✓ **Qinghe Gao**, Shan Liu, Xia Wu, and Anxin Wu.* Povarov-Type Reaction Using Methyl as New Input: Direct Synthesis of Substituted Quinolines by I_2-Mediated Formal [3 + 2 + 1] Cycloaddition. *Org. Lett.* **2014**, *16*, 4582−4585.
- ✓ **Qinghe Gao**, Xia Wu, Shan Liu, and Anxin Wu* I_2-Promoted Selective Oxidative Cross-Coupling/Annulation of 2-Naphthols with Methyl Ketones: A Strategy To Build Naphtho[2,1-*b*]furan-1(2*H*)-ones with a Quaternary Center. *Org. Lett.* **2014**, *16*, 1732−1735.
- ✓ **Qinghe Gao**, Xia Wu, Yuhong Li, Shan Liu, Xianggao Meng, and Anxin Wu.* Iodine-Promoted Sequential C(sp^3)-H Functionalization Reaction: An Annulation Strategy for the Construction of 3-Methylthio-4-Aryl-Maleimides. *Adv. Synth. Catal.* **2014**, *356*, 2924–2930.
- ✓ **Qinghe Gao**, Shan Liu, Xia Wu, and Anxin Wu.* Convergent integration of three self-sorting domino sequences: three-component direct synthesis of 3-methylthio-4-aryl- maleimides from methyl ketones with acetonitrile and DMSO. *Tetrahedron Lett.* **2014**, *55*, 6403–6406.
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- ✓ Jia-Chen Xiang, **Qing-He Gao**, and An-Xin Wu, Solvents as Reagents in Organic Synthesis (Ed,: Xiao-Feng Wu), Wiley-VCH, 2017, pp 315-353. (专著专章)

已授权发明专利

- ✓ **高庆贺**，刘兴霞，刘兆敏，杨利敏，原焕，贺爽。一种喹啉-4-甲酰胺类化合物的合成方法，2020.06.05，中国，ZL201710823302.2
- ✓ **高庆贺**，刘兴霞，原焕，王亚坤，仝培源，申昊天，张志昂，张伟荣，张积霞。一种 3-(4-吡啶)吲哚类化合物的合成方法，2020.06.26，中国，ZL201811073559.1
- ✓ **高庆贺**，原焕，刘兆敏，吴曼曼，孙佳佳，周晨阳。一种 2-甲基吡啶类化合物的合成方法，2020.11.03，中国，ZL201810090848.6
- ✓ **高庆贺**，邱培勇，刘兆敏，杨利敏，吴曼曼。一种嘧啶并吲唑类化合物的合成方法，2021.05.04，中国，ZL201910303026.6
- ✓ **高庆贺**，韩新亚，徐永涛，段迎超，吕洁丽，房立真，张妍，严菊芬，李莹莹。一种扎来普隆的制备方法，2022.03.04，中国，ZL202110187247.9
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- ✓ 韩新亚，**高庆贺**，张妍，吴曼曼，严菊芬，孙振华，夏琴飞，丁小龙。一种[1 ,2 ,4]三氮唑并[1,5-*a*]嘧啶类化合物的合成方法，2022.04.12，中国，ZL202110187237.5
- ✓ **高庆贺**，刘兆敏，李莹莹，房立真，白素平，武利强，吕洁丽，段迎超，吴曼曼，孙振华。一种吡唑并[1,3,5]三嗪类化合物的合成方法，2022.09.30，中国，ZL202111002466.1