

Bo Gui

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Experience and Education

- June 2022-present **Associate researcher**
- July 2018 ~ May 2022 **Postdoc.**
College of Chemistry and Molecular Sciences, Wuhan University
- September 2013 ~ June 2018 **Ph.D**
College of Chemistry and Molecular Sciences, Wuhan University, (Advisor: Prof. Cheng Wang)
- September 2009 ~ June 2013 **B.S.**
College of Chemistry and Molecular Sciences, Wuhan University, (Advisor: Prof. Cheng Wang)

Research Interest

- **Stimuli-responsive metal-organic frameworks (MOFs)**
Design and synthesize stimuli-responsive metal-organic frameworks from organic-based molecular switches
- **Three-dimensional covalent organic frameworks (3D COFs)**
Design and synthesize fluorescent 3D COFs

Awards and fellowships

- The National Scholarship awarded by Ministry of Education of People's Republic of China (2016)
- Excellent Graduate Student Pacesetter of Wuhan University (2016)
- Outstanding Graduates of Wuhan University (2018)
- Academic Innovation Award of Wuhan University (2018)
- Improved Medical Scholarship among graduates by Wuhan University (2015)
- Outstanding Student Scholarship awarded by Wuhan University (2016)
- Outstanding Student Scholarship awarded by Wuhan University (2017)
- Badminton Team Champion awarded by the union of Arts and Science in Wuhan University (2016)
- Fourth place in badminton team awarded by Wuhan University (2018)
- Academic Paper Innovation Award by Shanghai Titan Group (2020)

Publications

1. **Bo Gui**, Huimin Ding, Yuanpeng Cheng, Arindam Mal and Cheng Wang*. Structural Design and Determination of 3D Covalent Organic Frameworks, *Trends Chem.*, **2022**, *4*, 437.
2. **Bo Gui**[#], Xuefen Liu[#], Yuanpeng Cheng, Ya Zhang, Pohua Chen, Minghui He, Junliang Sun and Cheng Wang*. Tailoring the Pore Surface of 3D Covalent Organic Frameworks via Post-Synthetic Click Chemistry, *Angew. Chem. Int. Ed.*, **2022**, *61*, e202113852. (#co-first author)
3. **Bo Gui**[#], Xuefeng Liu[#], Ge Yu, Weixuan Zeng, Shaolong Gong, Chuluo Yang, and Cheng Wang*. Tuning of Förster Resonance Energy Transfer in Metal-Organic Frameworks: Toward Amplified Fluorescence Sensing. *CCS Chem.*, **2020**, *2*, 2054. (#co-first author)
4. **Bo Gui**, Guiqing Lin, Huimin Ding, Chao Gao, Arindam Mal and Cheng Wang*. Three-Dimensional Covalent Organic Frameworks: From Topology Design to Applications. *Acc. Chem. Res.*, **2020**, *53*, 2225.
5. **Bo Gui**, Yi Meng, Yang Xie, Jianwu Tian, Ge Yu, Weixuan Zeng, Guanxin Zhang, Shaolong Gong, Chuluo Yang, Deqing Zhang* and Cheng Wang*. Tuning the photoinduced electron transfer in a Zr-MOF: toward solid-state fluorescent molecular switch and turn-on sensor. *Adv. Mater.*, **2018**, *30*, 1802329.
6. Xiangshi Meng[#], **Bo Gui**[#], Daqiang Yuan, Matthias Zeller, Cheng Wang*. Mechanized azobenzene-functionalized zirconium metal-organic framework for on-command cargo release. *Sci. Adv.*, **2016**, *2*, e1600480. (#co-first author)
7. **Bo Gui**, Xiangshi Meng, Yi Chen, Jianwu Tian, Guoliang Liu, Chencheng Shen, Matthias Zeller, Daqiang Yuan*, Cheng Wang*. Reversible tuning hydroquinone/quinone reaction in metal-organic framework: immobilized molecular switches in solid state. *Chem. Mater.*, **2015**, *27*, 6426. **Top 10 downloads of "Chem. Mater." for Sept., 2015.**
8. **Bo Gui**, Yi Meng, Yang Xie, Ke Du, Andrew C. H. Sue*, Cheng Wang*. Immobilizing organic-based molecular switches into metal-organic frameworks: a promising strategy for switching in solid state. *Macromol. Rapid Commun.*, **2017**, 1700388.
9. **Bo Gui**[#], Ka-Kit Yee[#], Yan-Lung Wong, Shek-Man Yiu, Matthias Zeller, Cheng Wang*, Zhengtao Xu*. Tackling poison and leach: catalysis by dangling thiol-palladium functions within a porous metal-organic solid. *Chem. Commun.*, **2015**, *51*, 6917. **Highlighted by "Chemistry World".** (#co-first author)
10. **Bo Gui**, Na Yu, Yi Meng, Fang Hu*, Cheng Wang*. Immobilization of AIEgens into metal-organic frameworks: ligand design, emission behavior, and applications. *J. Polym. Sci., Part A: Polym. Chem.*, **2017**, *55*, 1809.
11. **Bo Gui**[#], Guiping Hu[#], Tailin Zhou, Cheng Wang*. Pore surface engineering in a zirconium metal-organic framework via thiol-ene reaction. *J. Solid State Chem.*, **2015**,

223, 79. (#co-first author)

12. **Bo Gui**, Xiangshi Meng, Hai Xu, Cheng Wang*. Postsynthetic modification of metal-organic frameworks through click chemistry. *Chin. J. Chem.*, **2016**, *34*, 186.
13. **Bo Gui**, Yingfan Zhang, Xiangshi Meng, Cheng Wang*. Post-synthetic modification of a novel azide-functionalized metal-organic framework. *Sci. Sin. Chim.*, **2016**, *46*, 472. (in Chinese)
14. **Bo Gui**, Yuanpeng Cheng, Cheng Wang*. Postsynthetic modification of three-dimensional covalent organic frameworks. *Sci. Sin. Chim.*, **2022**, *52*, 142. (in Chinese)
15. Xiaoling Liu[#], Jian Li[#], **Bo Gui**, Guiqing Lin, Qiang Fu, Sheng Yin, Xuefen Liu, Junliang Sun* and Cheng Wang*. A crystalline three-dimensional covalent organic framework with flexible building blocks *J. Am. Chem. Soc.*, **2021**, *143*, 2123. (#co-first author, highly cited paper)
16. Yang Xie[#], Jian Li[#], Cong Lin, **Bo Gui**, Chunqing Ji, Daqiang Yuan, Junliang Sun* and Cheng Wang*. Tuning the Topology of Three-Dimensional Covalent Organic Frameworks via Steric Control: From **pts** to Unprecedented **ljh**. *J. Am. Chem. Soc.*, **2021**, *143*, 7279. (#co-first author)
17. Shuai Zhang, **Bo Gui**, Teng Ben*, Shilun Qiu. Switchable molecular sieving of a capped metal organic framework membrane. *J. Mater. Chem. A*, **2020**, *8*, 19984.
18. Yingfan Zhang, **Bo Gui**, Rufan Chen, Guiping Hu, Yi Meng, Daqiang Yuan, Matthias Zeller, Cheng Wang*. Engineering a zirconium MOF through orthogonal ‘click’ reactions: precise loading of bifunctional groups on the pore surface. *Inorg. Chem.*, **2018**, *57*, 2288.
19. Bijian Li, **Bo Gui**, Guiping Hu, Daqiang Yuan, Cheng Wang*. Post-synthetic modification of alkyne-tagged zirconium metal-organic framework via “click” reaction. *Inorg. Chem.*, **2015**, *54*, 5139.
20. Zijun Yan, Man He, Beibei Chen, **Bo Gui**, Cheng Wang, Bin Hu*. Magnetic covalent triazine framework for rapid extraction of phthalate esters in plastic packaging materials followed by gas chromatography-flame ionization detection. *J. Chromatogr. A*, **2017**, *1525*, 32.
21. Linan Meng, Na Xin, Chen Hu, Jinying Wang, **Bo Gui**, Junjie Shi, Cheng Wang, Cheng Shen, Guanyu Zhang, Hong Guo*, Sheng Meng* and Xuefeng Guo*. Side-group chemical gating via reversible optical and electric control in a single molecule transistor. *Nat. Commun.* **2019**, *10*, 1450.