云南师范大学化学化工学院

谢生明

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个人简介：

以第一作者及通讯作者发表包括 J. Am. Chem. Soc.、Anal. Chem.等在内的 SCI 论文 50 余篇，授权发明专利 6 件。主持承担了国家自然科学基金 4 项、云南省科技计划 4 项。云南省中青年学术和技术带头人，云南省“兴滇英才支持计划”青年人才，云南省教育厅科技创新团队负责人，云南省硕士生导师团队负责人。获 2022 年度云南省自然科学奖二等奖。

主要研究方向：

手性功能材料、手性色谱分析

教育与工作经历:

2019 年 08 月~现在，云南师范大学化学化工学院，教授

2015 年 10 月~2019 年 08 月，云南师范大学化学化工学院，副教授

2013 年 02 月~2015 年 10 月，云南师范大学化学化工学院，讲师

2008 年 09 月~2012 年 12 月，华东师范大学化学与分子工程学院，分析化学，博士

2005 年 09 月~2008 年 07 月，云南师范大学生命科学学院，环境化学，硕士

2004 年 09 月~2005 年 07 月，瑞金市第三中学，高中化学教师

2000 年 09 月~2004 年 07 月，赣南师范学院，应用化学，学士/本科

获奖成果和荣誉称号：

1. 谢生明. 云南省中青年学术和技术带头人, 2022.

2. 谢生明. 云南省“兴滇英才支持计划”——青年人才, 2018.

3. 谢生明. 云南省引进高层次人才享受政府购房补贴和工作经费资助, 2018.

4. 谢生明. 2017-2018年度“三育人”先进个人, 2018.

5. 谢生明, 袁黎明, 章俊辉, 王帮进, 张美. 手性多孔材料高效拆分外消旋体化合物的研究, 云南省科学技术奖（自然科学类）二等奖, 2022.

主持科研项目：

1. 国家自然科学基金项目, 基于框架材料手性多孔液体毛细管气相色谱柱的研究, 执行时间: 2024/1-2027/12.

2. 国家自然科学基金项目, 基于手性金属有机笼毛细管气相色谱手性柱的研究, 执行时间: 2020/1-2023/12.

3. 国家自然科学基金项目, 基于手性共价有机骨架材料高效液相色谱手性柱的研究, 执行时间: 2018/1-2021/12.

4. 国家自然科学基金项目, 基于手性金属-有机骨架材料的高效液相色谱手性柱的研究, 执行时间: 2013/8-2017/12.

5. 云南省基础研究计划, 基于挥发油中对映体分离的新型金属-有机骨架气相色谱手性柱的研究, 执行时间: 2017/6-2020/5.

6. 云南省基础研究计划, 手性金属-有机骨架材料的修饰及其手性识别性能的研究, 执行时间: 2013/10-2016/9.

7. 云南省中青年学术和技术带头人后备人才项目（云南省科技厅）, 执行时间: 2018/6-2022/6.

8. 云南省高校生化分离分析与生物传感科技创新团队（云南省教育厅）, 2020.

9. 云南省高校硕士研究生导师团队（云南省教育厅）, 2021.

代表性论文、专利：

1. Jun-Hui Zhang*, Rui-Xue Liang, Bin Huang, Li-Qin Yu, Juan Chen, Bang-Jin Wang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Preparation of a homochiral metal-organic cage and its bonded silicas for efficient enantioseparation in high-performance liquid chromatography and gas chromatography. ***Chin. Chem. Lett.***, 2025, 111146.

2. Tian-Jian Xiong, Chen Liu, Hao Wang, Ren-Xiu He, Yun-Qiao Zhao, Yun-Jie Li, Bang-Jin Wang, Jun-Hui Zhang, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral-induced synthesis of (R)-TpBpy-COF@SiO_2 core-shell composite for HPLC enantioseparation. ***Microchem J.***, 2025, 213,113634.

3. Hao Wang, Yu-Lan Zhu, Tian-Jian Xiong, Ren-Xiu He, Yun-Qiao Zhao, Yun-Jie Li, Bang-Jin Wang, Jun-Hui Zhang, ***Sheng-Ming Xie****, Li-Ming Yuan. A homochiral metal-organic polyhedron CMOP-IL for capillary gas chromatographic separation. ***Talanta***, 2025, 295, 128354.

4. Zong-Hong Luo, Yu-Lan Zhu, Xiao-Yan Ran, An-Xu Ma, Yue Zhang, Hong-Mei Zhou, Bang-Jin Wang, Jun-Hui Zhang, ***Sheng-Ming Xie****, Li-Ming Yuan. Subcomponent self-assembly construction of tetrahedral cage $Fe^{II}_4L_4$ for high-resolution gas chromatographic separation. ***Talanta***, 2024, 277, 126388.

5. Juan Chen, You-Ping Zhang, Li-Qin Yu, Bang-Jin Wang, ***Sheng-Ming Xie****, Jun-Hui Zhang*, Li-Ming Yuan. Facile synthesis of a new chiral polyimine macrocycle and its application for enantioseparation in high-performance liquid chromatography. ***Talanta***, 2024, 280, 126781.

6. Chen Liu, Ping Guo, Xiao-Yan Ran, Yu-Lan Zhu, Bang-Jin Wang, Jun-Hui Zhang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral-induced synthesis of chiral covalent organic frameworks core-shell microspheres for HPLC enantioseparation. ***Microchim. Acta***, 2024, 191, 281.

7. Yu-Lan Zhu, An-Xu Ma, Xiao-Yan Ran, Chen Liu, Bang-Jin Wang, Jun-Hui Zhang*, ***Sheng-Ming Xie****, Li-Ming Yuan. A chiral metal-organic polyhedron used as stationary phase for gas chromatographic separations. ***Microchem J.***, 2024, 200, 110331.

8. Hong-Mei Zhou, Chen Liu, Yue Zhang, An-Xu Ma, Zong-Hong Luo, Yu-Lan Zhu, Xiao-Yan Ran, ***Sheng-Ming Xie****, Bang-Jin Wang*, Jun-Hui Zhang*, Li-Ming Yuan. Asymmetric catalytic synthesis of chiral covalent organic framework composite (S)-DTP-COF@SiO_2 for HPLC enantioseparations by normal-phase and reversed-phase chromatographic modes. ***Microchim. Acta***, 2024, 191, 445.

9. Yue Zhang, Yan-Rui Lu, Chen Liu, An-Xu Ma, Zong-Hong Luo, Hong-Mei Zhou, Jun-Hui Zhang, Bang-Jin Wang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Room temperature synthesis of a chiral covalent organic framework core-shell composite for high-performance liquid chromatography enantioseparation. ***J. Sep. Sci.***, 2024, 47(15), 2400140.

10. An-Xu Ma, Cai-Fang Liu, Yu-Lan Zhu, Zong-Hong Luo, Hong-Mei Zhou, Yue Zhang, Bang-Jin Wang*, Jun-Hui Zhang, ***Sheng-Ming Xie****, Li-Ming Yuan. Preparation of chiral metal-organic framework L-his-MIL-53-NH_2@SiO_2 composite by in situ growth and chiral post-modification strategies for HPLC enantiomeric separation. ***New J. Chem.***, 2024, 48(21), 9702-9708.

11. Bin Huang, Kuan Li, Qi-Yu Ma, Tuan-Xiu Xiang, Rui-Xue Liang, Ya-Nan Gong, Bang-Jin Wang, Jun-Hui Zhang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Homochiral Metallacycle Used as a Stationary Phase for Capillary Gas Chromatographic Separation of Chiral and Achiral Compounds. ***Anal. Chem.***, 2023, 95(35), 13289-13296.

12. Rui-Xue Liang, You-Ping Zhang, Jun-Hui Zhang*, Ya-Nan Gong, Bin Huang, Bang-Jin Wang, ***Sheng-Ming Xie****, Li-Ming Yuan. Engineering thiol-ene click chemistry for the preparation of a chiral stationary phase based on a 4+6 -type homochiral porous organic cage for enantiomeric separation in normal-phase and reversed-phase high performance liquid chromatography. ***J. Chromatogr. A***, 2023, 1711, 464444.

13. Chen Liu, Ping Guo, Yan-Rui Lu, Yu-Lan Zhu, Xiao-Yan Ran, Bang-Jin Wang, Jun-Hui Zhang*, ***Sheng-Ming Xie****, Li-Ming Yuan In situ growth preparation of a new chiral covalent triazine framework core-shell microspheres used for HPLC enantioseparation. ***Microchim. Acta***, 2023, 190(6), 238.

14. Xiao-Yan Ran, Ping Guo, Cai-Fang Liu, Yu-Lan Zhu, Chen Liu, Bang-Jin Wang*, Jun-Hui Zhang, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral Covalent-Organic Framework

MDI-β-CD-Modified COF@SiO2 Core-Shell Composite for HPLC Enantioseparation. ***Molecules***, 2023, 28(2), 662.

15. Yu-Lan Zhu, Ping Guo, Yu-Ping Yang, Xiao-Yan Ran, Chen Liu, Bang-Jin Wang, Jun-Hui Zhang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral covalent triazine framework CC-DMP CCTF@SiO_2 core-shell microspheres used for HPLC enantioseparation. ***New J. Chem.***, 2023, 47(11), 5413-5419.

16. You-Ping Zhang, Kuan Li, Ling-Xiao Xiong, Bang-Jin Wang, ***Sheng-Ming Xie****, Jun-Hui Zhang*, Li-Ming Yuan. "Click" preparation of a chiral macrocycle-based stationary phase for both normal-phase and reversed-phase high performance liquid chromatography enantioseparation. ***J. Chromatogr. A***, 2022, 1683, 463551.

17. Yu-Ping Yang, Ji-Kai Chen, Ping Guo, Yan-Rui Lu, Cai-Fang Liu, Bang-Jin Wang, Jun-Hui Zhang, ***Sheng-Ming Xie****, Li-Ming Yuan. A chiral porous organic polymer COP-1 used as stationary phase for HPLC enantioseparation under normal-phase and reversed-phase conditions. ***Microchim. Acta***, 2022, 189 (9), 360.

18. Cai-Fang Liu, Ji-Kai Chen, Ping Guo, Yan-Rui Lu, Yu-Ping Yang, Bang-Jin Wang, Jun-Hui Zhang*, ***Sheng-Ming Xie****, Li-Ming Yuan. A chiral metal-organic cage $[Fe_4L_6](ClO_4)_8$ used for capillary gas chromatographic separations. ***Anal. Chim. Acta***, 2022, 1224, 304197.

19. Kuan Li, Ling-Xiao Xiong, Ying Wang, You-Ping Zhang, Bang-Jin Wang, ***Sheng-Ming Xie****, Jun-Hui Zhang*, Li-Ming Yuan. Preparation and evaluation of a chiral porous organic cage based chiral stationary phase for enantioseparation in high performance liquid chromatography. ***J. Chromatogr. A***, 2022, 1679, 463415.

20. You-Ping Zhang, Ling-Xiao Xiong, Ying Wang, Kuan Li, Bang-Jin Wang, ***Sheng-Ming Xie****, Jun-Hui Zhang*, Li-Ming Yuan. Preparation of chiral stationary phase based on a [3+3] chiral polyimine macrocycle by thiol-ene click chemistry for enantioseparation in normal-phase and reversed-phase high performance liquid chromatography. ***J. Chromatogr. A***, 2022, 1676, 463253.

21. Na-Yan Xu, Ping Guo, Ji-Kai Chen, Jun-Hui Zhang, Bang-Jin Wang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral core-shell microspheres β-CD-COF@SiO_2 used for HPLC enantioseparation. ***Talanta***, 2021, 235, 122754.

22. Ping Guo, Bao-Yan Yuan, Yun-Yan Yu, Jun-Hui Zhang, Bang-Jin Wang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral covalent organic framework core-shell composite CTpBD@SiO_2 used as stationary phase for HPLC enantioseparation. ***Microchim. Acta***, 2021, 188(9), 292.

23. Ji-Kai Chen, Yun-Yan Yu, Na-Yan Xu, Ping Guo, Jun-Hui Zhang, Bang-Jin Wang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral polyaniline modified metal-organic framework core-shell composite MIL-101@c-PANI for HPLC enantioseparation. ***Microchem. J.***, 2021, 169, 106576.

24. Bao-Yan Yuan, Li Li, Yun-Yan Yu, Na-Yan Xu, Nan Fu, Jun-Hui Zhang, Mei Zhang, Bang-Jin Wang*, ***Sheng-Ming Xie****, Li-Ming Yuan. Chiral metal-organic framework $[Co_2(D\text{-cam})_2(TMDPy)]$@$SiO_2$ core-shell microspheres for HPLC separation. ***Microchem. J.***, 2021, 161, 105815.

25. Yun-Yan Yu, Na-Yan Xu, Jun-Hui Zhang, Bang-Jin Wang, ***Sheng-Ming Xie****, Li-Ming Yuan*. Chiral metal-organic framework D-his-ZIF-8@SiO_2 core-shell microspheres used for HPLC enantioseparations. ***ACS. Appl. Mater. Inter.***, 2020, 12(14), 16903-16911.

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27. ***Sheng-Ming Xie****, Nan Fu, Li Li, Bao-Yan Yuan, Jun-Hui Zhang, Yan-Xia Li, Li-Ming Yuan*. Homochiral metal-organic cage for gas chromatographic separations. ***Anal. Chem.***, 2018, 90(15), 9182-9188.

28. ***Sheng-Ming Xie****, Cong Hu, Li Li, Jun-Hui Zhang, Nan Fu, Bang-Jin Wang, Li-Ming Yuan*. Homochiral metal-organic framework for HPLC separation of enantiomers. ***Microchem. J.***, 2018, 139, 487-491.

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30. ***Sheng-Ming Xie***, Mei Zhang, Zhi-Xin Fei, Li-Ming Yuan*. Experimental comparison of chiral metal-organic framework used as a stationary phase in chromatography. ***J. Chromatogr. A***, 2014, 1363,137-143.

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32. ***Sheng-Ming Xie***, Mei Zhang, Zhi-Yu Wang, Li-Ming Yuan*. Porous metal membranes for solid-phase extraction of polycyclic aromatic hydrocarbons. ***Analyst***, 2011, 136, 3988-3996.

33. ***Sheng-Ming Xie***, Ze-Jun Zhang, Zhi-Yu Wang, Li-Ming Yuan*. Chiral metal-organic frameworks for high-resolution gas chromatographic separations. ***J. Am. Chem. Soc.***, 2011, 133, 11892-11895.

34. ***Sheng-Ming Xie***, Wen-Fang Wang, Ping Ai, Meng Yang, Li-Ming Yuan*. Chiral separation of (R,S)-2-phenyl-1-propanol through cellulose acetate butyrate membranes. ***J. Membr. Sci.***, 2008, 321, 293-298.

35. **谢生明**, 罗宗鸿, 冉晓燕, 章俊辉. I型手性多孔液体材料及应. 中国发明专利号: ZL202410759248.X, 专利授权日期: 2025/07.

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37. **谢生明**, 杨玉平, 章俊辉. 一种用于拆分外消旋化合物的多孔液体气相色谱手性柱. 中国发明专利号: ZL202210429069.0., 专利授权日期: 2023/06.

38. **谢生明**, 余云艳, 李丽, 袁宝燕. 一种用于拆分外消旋化合物的手性 MOC 液相色谱分离柱. 中国发明专利号: ZL201811618184.2., 专利授权日期: 2021/12.

39. **谢生明**, 袁宝燕, 李丽. 一种用于对映体拆分的 MOF@SiO_2 核壳微球 HPLC 手性柱. 中国发明专利号: ZL201811618223.9., 专利授权日期: 2020/11.

40. **谢生明**, 胡聪, 章俊辉. 一种能拆分多种不同类型外消旋化合物的手性 MOF 分离柱. 中发明专利号: ZL201710242824.3., 专利授权日期: 2019/08.

主讲课程:

本科生课程：《分析化学》《仪器分析》《分析化学实验》《仪器分析实验》

研究生课程：《分离科学》