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教育背景

2002.9-2005.7 中国科学院化学研究所, 有机化学, 博士

工作经历

2005.12-至今 天津医科大学, 讲师, 副教授, 教授

2010.2-2010.6 美国密歇根科技大学, 博士后

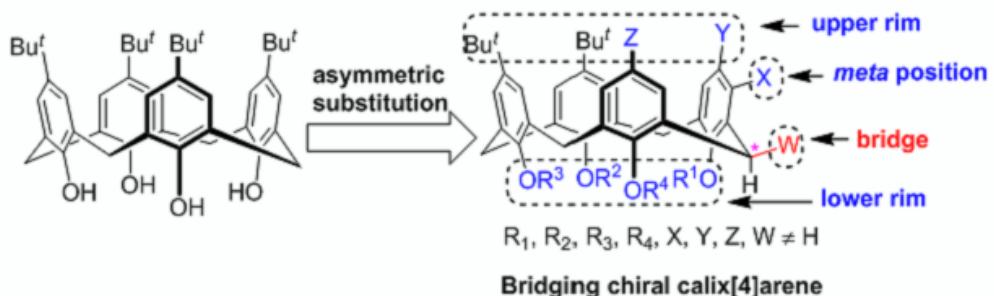
2009.2-2010.1 美国密西西比州立大学, 博士后

研究方向

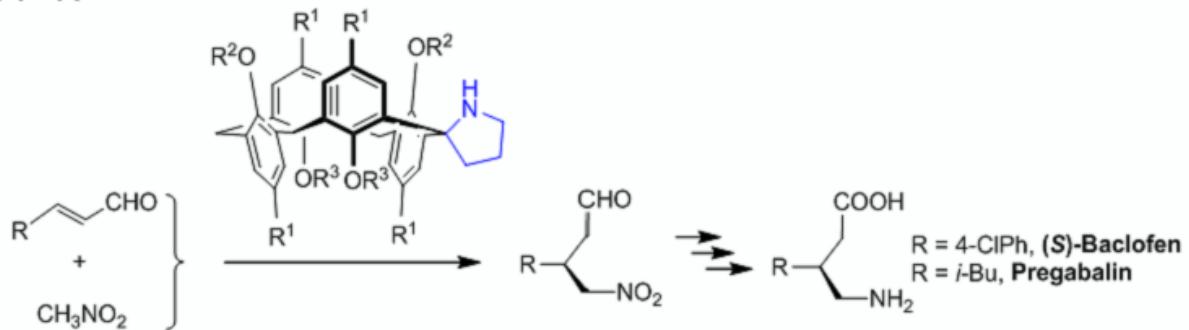
1. 桥连手性杯[4]芳烃催化剂在手性药物合成中的应用

作为小分子量的有机分子, 手性有机催化剂具有易得、稳定和价廉的优点。桥连手性杯[4]芳烃, 其手性来源于杯[4]芳烃骨架的不对称取代, 具有成为一类优秀手性催化剂的潜质, 并在手性药物合成中具有广泛的应用前景。

(1) Bridging chiral calix[4]arene

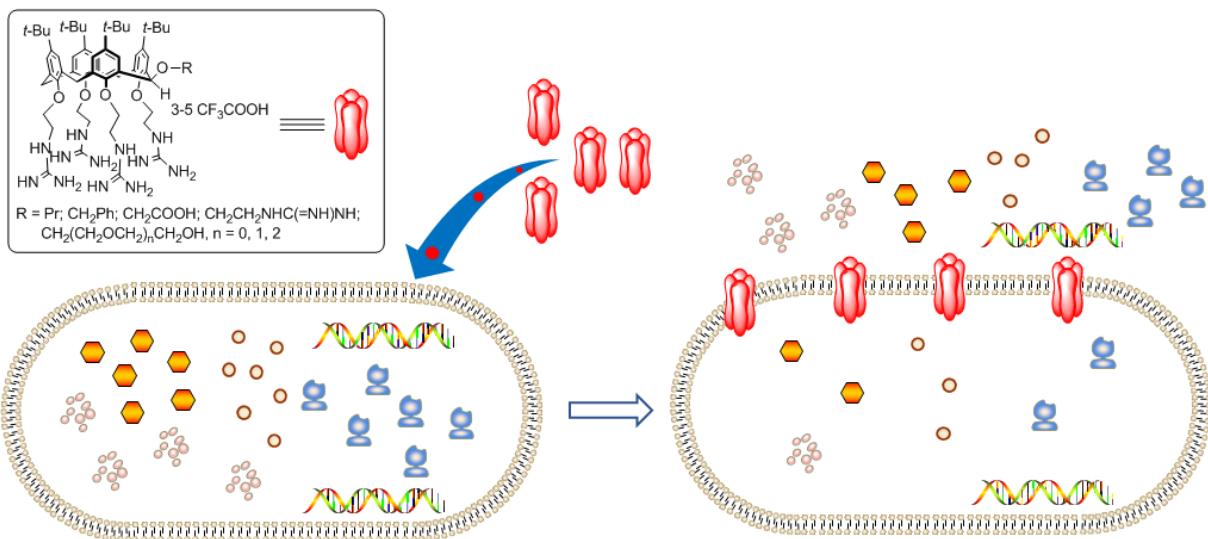


(2) Application



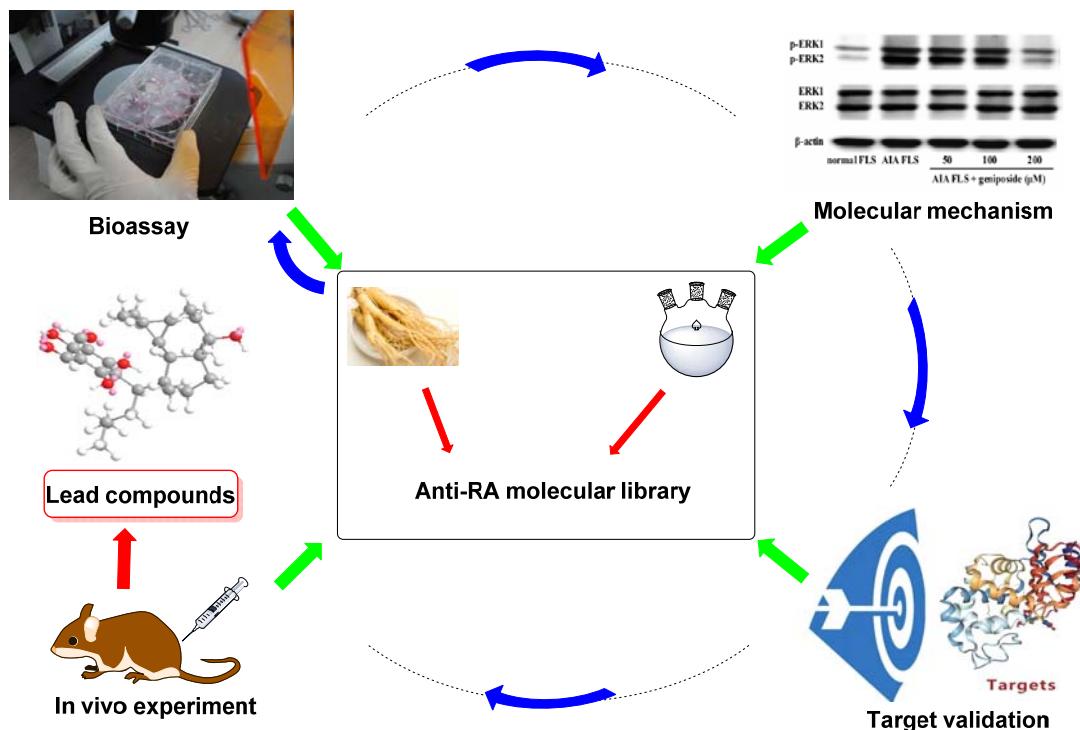
2. 桥取代杯[4]芳烃抗菌药的研究

微生物的细胞膜具有结构支持和形态保持等功能，并维持胞内外环境的物质进出和分子交换。两亲性的桥取代杯[4]芳烃衍生物，容易插入到微生物的细胞膜并破其结构，造成细胞内物质（如金属离子、蛋白质、油脂和核酸）的泄漏，从而发挥抗菌功能。



3. 类风湿性关节炎药物的研究

从天然药物中分离纯化和筛选具有抗类风湿性关节炎活性的化学成分，再采用体内体外方法研究其作用机制，然后在计算机辅助药物设计的指导下，对其结构进行理性修饰以获得更高活性的化合物，并最终获得能治疗类风湿性关节炎的药物。



研究成果（代表性论文和科研项目）

论著及编著	
论文 (2011年后)	<ol style="list-style-type: none"> 1. Dong-Li Zhang, Yue Wang, Jing-Bo Liu, Qian Chen, <u>Shao-Yong Li</u>, De-Jun Jin,* Sheng-An Tang.* Dichapetalin-type triterpenoids from <i>Dicchapetalum longipetalum</i> and their anti-inflammatory activity. <i>Phytochemistry</i>, 2024, 217, 113900. 2. Xin-Ao Li, Yi-Meng Zhang, Jian-Feng Huang, Chao-Ping Hou, <u>Shao-Yong Li</u>, Li-Min Xiao, Jun-Min Liu.* A direct Z-scheme quasi-2D/2D heterojunction constructed by loading photosensitive metal-organic nanorings with Pd single atoms on graphitic-C₃N₄ for superior visible light-driven H₂ production. <i>Solar RRL</i>, 2023, 7, 2300148. 3. Xiaopu Jia, Shuai Fan, Weili Dong, <u>Shao-Yong Li</u>, Yan Zhang, Ying Ma, Shuqing Wang. Setmelanotide optimization through fragment-growing, molecular docking in-silico method targeting MC4 receptor. <i>Journal of Biomolecular Structure & Dynamics</i>, 2023, 41, 15411-15420. 4. Ying-Hong Ma#, Yu Yu#, Shuai Fan, Xiao-Pu Jia, Sheng-An Tang, Shu-Qing Wang,* Wei-Li Dong*, <u>Shao-Yong Li</u>.* Calix[4]arene bridge mononitration with <i>tert</i>-butyl nitrite: synthesis of bridging chiral <i>p</i>-<i>tert</i>-butylcalix[4]arene with a mononitro bridge substituent. <i>The Journal of Organic Chemistry</i>, 2022, 87, 7665-7672. 5. Ting-Ting Ding#, Ya-Ya Liu#, Li-Ming Zhang, Jia-Rui Shi, Wei-Ren Xu, <u>Shao-Yong Li</u>*, Xian-Chao Cheng.* Exploring dual agonists for PPARα/γ receptors using pharmacophore modeling, docking analysis and molecule dynamics simulation. <i>Combinatorial Chemistry & High Throughput Screening</i>, 2022, 25, 1450-1461. 6. Fuhang Song#, Jiansen Hu#, Xinwan Zhang, Wei Xu, Jinpeng Yang, <u>Shao-Yong Li</u> and Xiuli Xu.* Unique cyclized thiopyrrolones from the marine-Derived <i>Streptomyces</i> sp. BTBU20218885. <i>Marine Drugs</i>. 2022, 20, 214. 7. Pengfei Jin, Min Li, <u>Shao-Yong Li</u>, Hongquan Yin, Shengan Tang. * Study on chemical constituents in <i>Ferula feruloides</i>. <i>Transactions of Beijing Institute of Technology</i>, 2022, 42 (2), 215-222. 8. Chao-Ping Hou, Xin-Lun Chen, Zhi-Jian Huang, Yang Lei, Li-Min Xiao, Jian-Feng Huang,* <u>Shao-Yong Li</u>,* Jun-Min Liu.* Robust heterogeneous photocatalyst for visible-light-driven hydrogen evolution promotion: immobilization of a fluorescein dye-encapsulated metal-organic cage on TiO₂. <i>ACS Applied Materials & Interfaces</i>. 2021, 13, 57230-57240. 9. Fan Zhang, Yuan Jiang, Pan Jiao, <u>Shao-Yong Li</u>,* Cheng Tang.* Ligand fishing via a monolithic column coated with white blood cell membranes: a useful technique for screening active compounds in <i>Astractyloides lancea</i>. <i>Journal of Chromatography A</i>, 2021, 1656, 462544. 10. Dong-Li Zhang, Min Li, Gui-Fang Han, <u>Shao-Yong Li</u>,* De-Jun Jin,* Sheng-An Tang.* Longipetalol A: a highly modified triterpenoid from <i>Dicchapetalum longipetalum</i>. <i>Journal of Natural Products</i>. 2021, 84, 1556-1562. 11. Dong-Li Zhang, Min Li, Wen-Feng Xu, Huan Yu, Peng-Fei Jin, <u>Shao-Yong Li</u>,* Sheng-An Tang.* Nine new dichapetalin-type triterpenoids from the twigs of <i>Dicchapetalum gelonioides</i> (Roxb.) Engl. <i>Fitoterapia</i>, 2021, 151, 104868. 12. Xin-Bang Peng#, Di He#, Guan-Nan Sun, Yu Yu, Ying-Hong Ma, Sheng-An Tang,* Wei-Li

- Dong,* Shao-Yong Li.* Mononitration of a calix[4]arene methylene bridge: synthesis and preliminary catalysis performances of bridging chiral *p*-*tert*-butylcalix[4]arenes with a monoamino bridge substituent in a 1,3-alternate conformation. *Journal of Organic Chemistry*, **2021**, 86, 3952-3959.
13. Hao Ma#, Xiu-Fang Weng#, Shan-Shan Ren, Zi-Ying Tang, Xin-Bang Peng, Yong He, Shuang Zheng,* Wei-Li Dong,* Shao-Yong Li.* Synthesis of bridging chiral *p*-*tert*-butylcalix[4]arenes with one and two carbamoyl bridge-substituents through anionic ortho-Fries rearrangement. *ChemistrySelect*, **2020**, 5, 6274-6277.
 14. Chunhui Gao#, Yinghua Zhang#, Yan Zhang, Shaoyong Li, Xinlin Yang, Yan Chen, Jingwei Fu, Yinsong Wang*, Xiaoying Yang.* cRGD-modified and disulfide bond-crosslinked polymer nanoparticles based on iopamidol as a tumor-targeted CT contrast agent. *Polymer Chemistry*, **2020**, 11, 889-899.
 15. Yingchun Li, Weixiang Zhai, Yongfang Liao, Jiangping Nie, Guifang Han, Yuguang Song, Shaoyong Li, Jingli Hou,* Yangping Liu.* Synthesis of central chirality-containing triarylmethanols and triarylmethyl radicals with extraordinarily stable configurations. *Journal of Organic Chemistry*, **2019**, 84, 11774-11782.
 16. Hao Ma#, Yong He#, Xiu-Fang Weng, Sheng-An Tang, Jiu-Xing Yan, Shao-Yong Li,* Wei-Li Dong,* Shi-Kun Ma.* Design and synthesis of bridging chiral *p*-*t*-butylcalix[4]arene tetrahydroisoquinolines and their application in Henry reaction as chiral organocatalysts. *ChemistrySelect*, **2019**, 4, 4642-4646.
 17. D. Hua, W. Luo, J. Duan, D. Jin, X. Zhou, C. Sun, Q. Wang, C. Shi, Z. Jiang, R. Wang, C. Rao, S. Yu,* S. Li,* S. Tang*. Screening and identification of potent α -glycosidase inhibitors from *Gardenia jasminoides* Ellis. *South African Journal of Botany*, **2018**, 119, 377-382.
 18. Wen-Shan Liu, Di He, Hao Ma, Xiu-Fang Weng, Shan-Shan Ren, Xiong Liu, Sheng-An Tang, Shi-Kun Ma, Jun-Min Liu, Shao-Yong Li.* Bridging chiral *de*-*tert*-butylcalix[4]arenes: diastereomeric crystallization-based optical resolution and determination of absolute configuration. *ChemistrySelect*, **2018**, 3, 10153-10156.
 19. Jun-Fang Wang, Li-Yuan Huang, Jian-Hua Bu, Shao-Yong Li, Su Qin, Yao-Wei Xu, Jun-Min Liu,* Cheng-Yong Su. A fluorescent calixarene-based dimeric capsule constructed via a MII-terpyridine interaction: cage structure, inclusion properties and drug release. *RSC Advances*, **2018**, 8, 22530-22535.
 20. Weixiang Zhai, Yalan Feng, Huiqiang Liu, Antal Rockenbauer*, Deni Mance, Shaoyong Li, Yuguang Song,* Marc Baldus, Yangping Liu.* Diastereoisomers of *L*-proline-linked tritylnitroxide biradicals: synthesis and effect of chiral configurations on exchange interactions. *Chemical Science*, **2018**, 9, 4381-4391.
 21. Chuan Zhao, Jiao-Jiao Xu, Jia Wang, Shao-Yong Li, Wei Qiao, Sheng-An Tang.* Five new cembrane diterpenoids from the South China Sea soft coral *Sinularia flexibilis*. *Phytochemistry Letters*, **2018**, 25, 180-183.
 22. Wang Ran-ran, Li Shao-yong, Qiao Wei, * Song Fang-qin, Zhou Hui, Qiao Shan. The mechanism of active ingredients in *Salicornia europaea* in treatment of diabetes based on pharmacological network. *Chinese Traditional Patent Medicine*, **2018**, 40(4), 802-809.
 23. Ming-Liang Chang, Yong He, Jing Zhou,* Shao-Yong Li.* Synthesis of N,O-type inherently chiral calix[4]arenes substituted on the lower rim and their organocatalysis properties. *Journal of the Brazilian Chemical Society*, **2017**, 28, 1363-1370.

	<p>24. Ming-Liang Chang, Yong He, Chuan Zhao, Lan-Fang Hao, <u>Shao-Yong Li</u>.* Four types of novel potential malate synthase inhibitors from virtual screening. <i>Current Enzyme Inhibition</i>, 2017, 13, 176-183.</p> <p>25. Wen-Qiang Xu, Wen-Shan Liu, Jiu-Xing Yan, Shi-Kun Ma, Jing Guo, Jun-Min Liu,* Run-Ling Wang,* <u>Shao-Yong Li</u>.* An approach to optically pure bridging chiral <i>p</i>-tert-butylcalix[4]arenes through a homologous anionic ortho-Fries rearrangement. <i>Journal of Organic Chemistry</i>, 2016, 81, 10683-10687.</p> <p>26. Xinghua Liu, Chunhui Gao, Junheng Gu, Yunfang Jiang, Xinlin Yang, <u>ShaoYong Li</u>, Wei Gao, Tong An, Hongquan Duan, Jingwei Fu, Yinsong Wang,* Xiaoying Yang.* Hyaluronic acid stabilized iodine-containing nanoparticles with Au nanoshell coating for X-ray CT imaging and photothermal therapy of tumors. <i>ACS Applied Materials & Interfaces</i>, 2016, 8, 27622-27631.</p> <p>27. Xu-Dong Lin, Biao Peng, <u>Shao-Yong Li</u>, Jia Shao, Qing-Zhong Li, Cheng-Zhi Xie,* Jing-Yuan Xu.* Novel Zn(II)-thiazolone-based solid fluorescent chemosensors: naked-eye detection for acid/base and toluene. <i>RSC Advances</i>, 2016, 6, 52310-52317.</p> <p>28. Feng-Jing An, Wen-Qiang Xu, Shuang Zheng, Shi-Kun Ma, <u>Shao-Yong Li</u>,* Run-Ling Wang,* Jun-Min Liu*. Bridging chiral calix[4]arenes: description, optical resolution, and absolute configuration determination. <i>European Journal of Organic Chemistry</i>, 2016, 1012-1016.</p> <p>29. Li-Lin Tan, Jun-Min Liu,* <u>Shao-Yong Li</u>, Li-Min Xiao, Dai-Bin Kuang, Cheng-Yong Su.* Dye-sensitized solar cells with improved performance using cone-calix[4]arene based dyes. <i>ChemSusChem</i>, 2015, 8, 280-287.</p> <p>30. Yao-Wei Xu, Li-Lin Tan, Jun-Min Liu,* Li-Min Xiao, <u>Shao-Yong Li</u>,* Cheng-Yong Su.* Fluorescent calix[4]arene chemosensor for acidic and basic amino acids in pure aqueous media. <i>RSC Advances</i>, 2014, 4, 28046-28051.</p> <p>31. Shuang Zheng, Ming-Liang Chang, Jing Zhou, Jing-Wei Fu, Qing-Wei Zhang, <u>Shao-Yong Li</u>,* Wei Qiao,* Jun-Min Liu.* Qualitative analysis of the helical electronic energy of inherently chiral calix[4]arenes: an approach to effectively assign their absolute configuration. <i>International Journal of Molecular Sciences</i>, 2014, 15, 9844-9858.</p> <p>32. <u>Shao-Yong Li</u>, Yao-Wei Xu, She-Quan Zeng, Li-Min Xiao, Hong-Quan Duan, Xue-Lian Lin, Jun-Min Liu,* Cheng-Yong Su.* Highly selective fluorescent calix[4]arene chemosensor for acidic amino acids in pure aqueous media. <i>Tetrahedron Letters</i>, 2012, 53, 2918-2921.</p> <p>33. Jun-Min Liu,* Jian-Ying Shi, Yao-Wei Xu, Cheng-Yong Su, <u>Shao-Yong Li</u>.* Synthesis of inherently chiral wide rim ABC-substituted calix[6]arene derivatives. <i>Supramolecular Chemistry</i>, 2011, 23, 419-424.</p> <p>34. <u>Shao-Yong Li</u>, Yao-Wei Xu, Jun-Min Liu,* Cheng-Yong Su. Inherently chiral calixarenes: synthesis, optical resolution, chiral recognition and asymmetric catalysis. <i>International Journal of Molecular Sciences</i>, 2011, 12, 429-455.</p> <p>35. Dongmao Zhang,* Karthikeshwar Vangala, <u>ShaoYong Li</u>, Michael Yanney, Hao Xia, Sige Zou, Andrzej Sygula. Acid cleavable surface enhanced raman tagging for protein detection. <i>Analyst</i>, 2011, 136, 520-526.</p>
科研项目	<p>1. 桥连手性杯[4]芳烃螺吡咯烷超分子催化剂的研究，国家自然科学基金面上项目（No. 22171211），主持，在研。</p> <p>2. 基于杯芳烃的新型光敏染料的设计合成及其在染料敏化太阳电池中的应用，国家自然科学基金面上项目（No. 21572280），合作，完成；</p>

	<p>3. 电子螺旋理论指导下用于 2-氨基-1-芳基乙醇类手性药物不对称合成的内在手性杯[4]芳烃催化剂的研究, 国家自然科学基金面上项目 (No. 21272173), 主持, 完成;</p> <p>4. 基于 UPy/NAPy 相互作用的超分子胶囊的构筑与性质研究(一), 国家自然科学基金重大研究计划培育项目 (No. 91227105), 合作, 完成;</p> <p>5. 手性药物分子荧光传感器的合成及其在手性萃取法中的应用, 天津医科大学校级项目 (No. 2006x9d2), 主持, 完成。</p>
荣誉奖励	
其他事项	