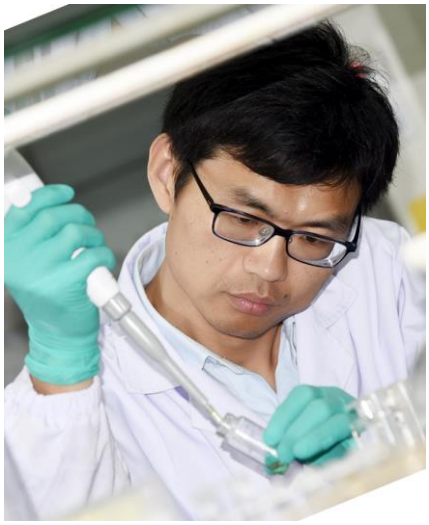


个人简介：

刘思敏，男，教授，博导，海外高层次人才获得者。

湖北大学应用化学学士（1995-1999）；武汉大学有机化学博士（1999-2004）；美国University of Maryland (马里兰大学)、 Tulane University (杜兰大学)博士后（2005-2012）；武汉科技大学化学与化工学院特聘教授（2013-至今）。

作为核心成员参与多项美国 NSF、NIH 项目，主持多项国家自然科学基金面上项目。总发表 SCI 论文近 80 余篇（40 余篇一作/通讯），以第一/通讯作者发表的高水平化学类杂志包括 *Nature-Chemistry, Angew. Chem. Int. Ed., J. Am. Chem. Soc., Org. Lett.*等，所发表文章被引用次数达 3000 余次，高被引论文一篇。多次参加国际国内有机化学、超分子化学领域会议并作邀请报告。*Journal of the American Chemical Society*、*Chemical Science*、Organic Letters 等国际知名期刊审稿人。2015 年入选中组部“海外高层次人才”计划。

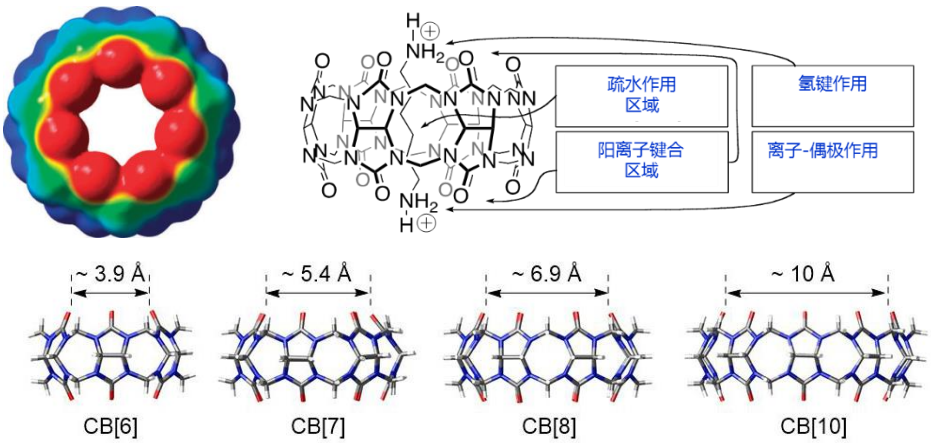
主持科研（人才）项目：

1. 国家自然科学基金面上项目（基于葫芦[10]脲主体增强分子间非共价弱相互作用的超分子聚合物的构建及其功能应用，21871216，2019-2022） 在研
2. 国家自然科学基金面上项目（葫芦[10]脲的分子识别及作为超分子纳米反应器的研究，21472143，2015-2018） 结题
3. 中组部“海外高层次人才”计划（2016-2018）

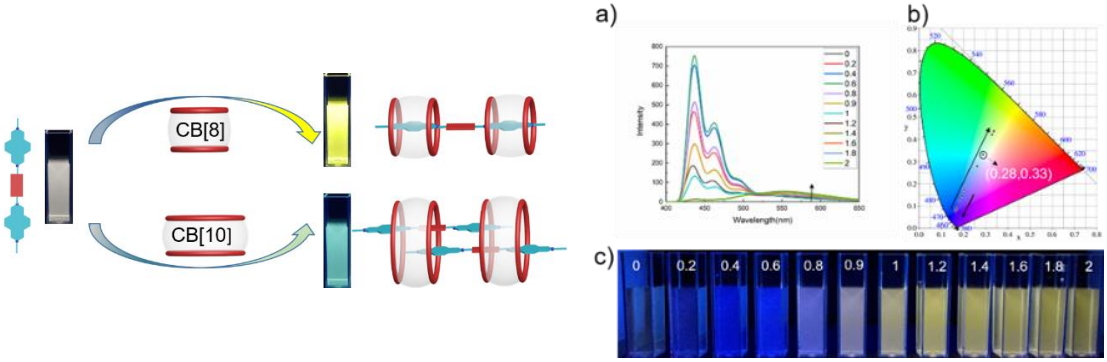
研究方向：

课题组的研究领域为有机超分子化学，研究方向包括有机合成、葫芦脲主客体化学、超分子催化、超分子智能聚合材料、发光材料性能调控等，与国际国内诸多课题组在包括超分子生物材料等领域保持有密切合作。

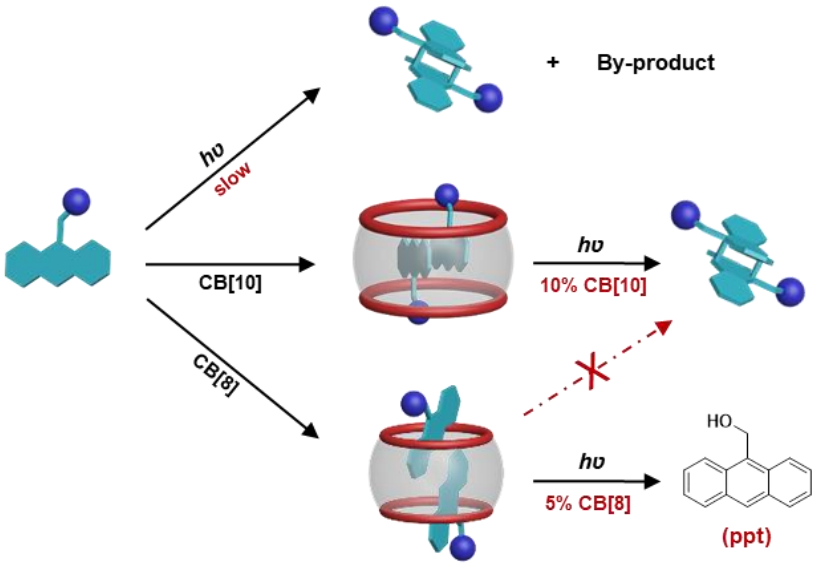
课题组同学多次获得“校优硕/博培育计划”支持，多人获得校级“国家奖学金”，欢迎感兴趣的同学们报考，尤其有读博意愿的同学。



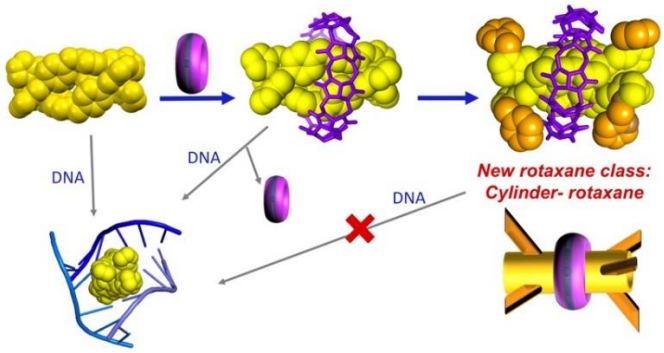
（大环主体葫芦[*n*]脲的结构）



（主客体作用调控发光：*Org. Lett.* **2021**, *23*, 6633）



（有机超分子催化合成：*Chem. Sci.* **2020**, *11*, 4779）



（分子机器-轮烷：*J. Am. Chem. Soc.* **2020**, *142*, 20651）（国际合作）

代表性论文（节选）：

1. Xiong, W.; Liu, X.; Qi, Q.; Ji, H.; Liu, F.; Zhong, C.; **Liu, S.**; Tian, T.*; Zhou, X. Supramolecular CRISPR-OFF switches with host–guest chemistry. *Nucleic Acids Res.* **2022**, *50*, 1241–1255.
2. Han, X.*; Sun, D.; Tang, S.; Wu, Y.; Wang, L.; Zhang, X.; **Liu, S.*** Host-guest interaction-directed strategy for managing mechanochromic luminescent behavior by modulating molecular packing and conformation. *J. Mater. Chem. C* **2021**, *9*, 17307–17312.
3. Sun, D.; Wu, Y.; Han, X.; **Liu, S.*** Achieving enhanced photochromic property of diarylethene through host-guest interaction in aqueous solution. *Chem. Eur. J.* **2021**, *27*, 16153–16160.
4. Fan, G.; Yu, X.; Han, X.; Zhao, Z.; **Liu, S.*** Tunable white-light emissions of azapyrene derivatives with cucurbit[n]uril hosts in aqueous solution. *Org. Lett.* **2021**, *23*, 6633–6637.
5. Liu, F.; Chowdhury, S.; Rosas, R.; Monnier, V.; Charles, L.; Karoui, H.; Gigmes, D.; Ouari, O.; Chevallier, F.; Bucher, C.*; Kermagoret, A.*; **Liu, S.***; Bardelang, D.* Triple Stack of a Viologen Derivative in a CB[10] Pair (Front Cover Paper). *Org. Lett.* **2021**, *23*, 5283−5287.
6. Hooper, C. A. J.; Cardo, L.; Craig, J. S.; Melidis, L.; Garai, A.; Egan, R. T.; Sadovnikova, V.; Burkert, F.; Male, L.; Hodges, N. J.; Browning, D. F. Rosas, R.; Liu, F.; Rocha, F. V.; Lima, M. A. **Liu, S.***; Bardelang, D.*; Hannon M. J.* Rotaxanating metallo-supramolecular nano-cylinder helicates to switch DNA junction binding. *J. Am. Chem. Soc.* **2020**, *142*, 20651−20660.
7. Wang, W.; Qi, B.; Yu, X.; Li, W.-Z.; Yang, Z.; Zhang, H.; **Liu, S.***; Liu, Y.*; Wang, X.-Q.* Modular design of supramolecular organic frameworks for image-guided photodynamic therapy. *Adv. Funct. Mater.* **2020**, 2004452.
8. Hu, X.; Liu, F.; Zhang, X.; Zhao, Z.; **Liu, S.*** Expected and unexpected photoreactions of 9-(10-)substituted anthracene derivatives in cucurbit[*n*]uril hosts. *Chem. Sci.* **2020**, *11*, 4779–4785.
9. 胡智雄, 孙冬冬, 韩勰, **刘思敏***. 平面型 d^8 和 d^{10} 过渡金属配合物与葫芦[10]脲的识别研究. *有机化学* **2020**, *40*, 1361–1366.
10. Liu, C.; Wu, Y.; Han, X.; **Liu, S.*** Emission enhancement of cationic tetraphenylethylene derivatives by encapsulation in a cucurbit[10]uril host in water. *New J. Chem.* **2020**, *44*, 3185–3188.
11. Chen, C.; Liu, F.; Zhang, X.; Zhao, Z.; **Liu, S.*** Fabrication, characterization and adsorption properties of cucurbit[7]uril-functionalized polycaprolactone electrospun nanofibrous membranes. *Beilstein J. Org. Chem*. **2019**, *15*, 992–999.

12. Du, T.; Yuan, W.; Zhao, Z.*; **Liu, S.*** Reversible morphological tuning of DNA–perylenebisdiimide assemblies through host–guest interaction. *Chem. Commun.* **2019**, *55*, 3658–3661.
13. Xie, Z.; Lei, J.; Yang, M.; Li, Y.; Geng, X.; **Liu, S.***; Wang, J.* Conical nanofluidic channel for selective quantitation of melamine in combination with *β*-cyclodextrin and a single-walled carbon nanotube. *Biosens. Bioelectron*. **2019**, *127*, 200–206.
14. Yang, X.; Liu, F.; Zhao, Z.; Liang, F.; Zhang, H.; **Liu, S.*** Cucurbit[10]uril-based chemistry (Review). *Chin. Chem. Lett.* **2018**, *29*, 1560–1566.
15. Yang, X.; **Liu, S.*** J-type dimer of Auramine O dye upon encapsulation in cucurbit[8]uril host showing intense excimer emission. *Dyes Pigments* **2018**, *159*, 331–336.
16. Yang, X.; Zhao, Z.; Zhang, X.; **Liu, S.*** Probing guest compounds enabling the facile isolation of cucurbit[10]uril. *Sci. China Chem.* **2018**, *61*, 787–791.
17. Zhao, X.; Liu, F.; Zhao, Z.; Karoui, H.; Bardelang, D.*; Ouari, O.*; **Liu, S.*** Effects of cucurbit[*n*]uril (*n* = 7, 8, 10) hosts on the formation and stabilization of a naphthalenediimide (NDI) radical anion. *Org. Biomol. Chem.* **2018**, *16*, 3809–3815.
18. Zhu, L.; Zhao, Z.; Zhang, X.; Zhang, H.; Liang, F.; **Liu, S.*** A Highly Selective and Strong Anti-Interference Host-Guest Complex as Fluorescent Probe for Detection of Amantadine by Indicator Displacement Assay. *Molecules* **2018**, *23*, 947.
19. Kuang, S.; Hu, Z.; Zhang, H.; Zhang, X.; Liang, F.; Zhao, Z.; **Liu, S.*** Enhancement of metal–metal interactions inside a large-cavity synthetic host in water. *Chem. Commun.* **2018**, *54*, 2169–2172 (高被引论文).
20. Wang, S.-R.; Song, Y.-Y.; Wei, L.; Liu, C.-X.; Fu, B.-S.; Wang, J.-Q.; Yang, X.-R.; Liu, Y.-N.; **Liu, S.-M.**; Tian, T.*; Zhou, X.* Cucurbit[7]uril-driven host-guest chemistry for reversible intervention of 5-formylcytosine-targeted biochemical reactions. *J. Am. Chem. Soc*. **2017**, *139*, 16903–16912.
21. Gong, W.; Ma, J.; Zhao, Z.; Gao, F.; Liang, F.; Zhang, H.; **Liu, S.*** Inhibition and Stabilization: Cucurbituril Induced Distinct Effects on the Schiff Base Reaction. *J. Org. Chem.* **2017**, *82*, 3298−3301.
22. Tian, T.; Song, Y.; Wei, L.; Wang, J.; Fu, B.; He, Z.; Yang, X.; Wu, F.; Xu, G.; **Liu, S.**; Li, C.; Wang, S.*; and Zhou, X.* Reversible manipulation of the G-quadruplex structures and enzymatic reactions through supramolecular host-guest interactions. *Nucleic Acids Res.* **2017**, *45*, 2283–2293.
23. Gong, W.; Yang, X.; Zavalij, P. Y.; Isaacs, L.*; Zhao, Z.; **Liu, S.*** From Packed “Sandwich” to “Russian Doll”: Assembly by Charge-Transfer Interactions in Cucurbit[10]uril (前封面及热点论文). *Chem. Eur. J.* **2016**, *22*, 17612–17618.
24. Han, Y.; Yang, X.; Liu, Y.; Ai, Q.; **Liu, S.***; Sun, C.; Liang, F.* Supramolecular Controlled Cargo Release via Near Infrared Tunable Cucurbit[7]uril-Gold Nanostars. *Sci. Rep.* **2016**, *6*, 22239.
25. Ma, L.; **Liu, S.-M.**; Yao, Lin; Xu, L.* Preparation and chromatographic performance evaluation of cucurbit[7]uril immobilized silica. *J. Chromatogr. A* **2015**, *1376*, 64–73.
26. **Liu, S.***; Gong, W.; Yang, X. Self-Healing Supramolecular Polymers via Host-Guest Interactions (Invited Review). *Curr. Org. Chem.* **2014**, *18*, 2010–2015.
27. **Liu, S.**; Russell, D. H.; Zinnel, N. F.; Gibb B. C.* Guest Packing Motifs within a Supramolecular Nanocapsule and a Covalent Analogue. *J. Am. Chem. Soc.* **2013**, *135*, 4314−4324.

28. **Liu, S.**; Gan, H.; Hermann, A.; Rick, S. W.; Gibb, B. C.* Kinetic resolution of constitutional isomers: ester hydrolysis outside a supramolecular nano-capsule. *Nat. Chem.* **2010**, *2*, 847–852.

图书章节：

1. Liu, F.; **Liu, S.*** *Cucurbit[n]urils Based Supramolecular Catalysis* in *Supramolecular Catalysts: Design, Fabrication, and Applications*. Su, C.-Y.; Wang, L. (Eds); World Scientific Publishing Company, **2020**, Chapter 5, 149-192.
2. Liu, F.; **Liu, S.*** *Biological Systems Involving Cucurbituril* in *Handbook of Macrocyclic Supramolecular Assembly*. Liu, Y.; Chen, Y.; Zhang, H.-Y. (Eds); Springer Nature Singapore Pte Ltd. **2019**.