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个人简介

本、硕、博就读于天津大学（2003–2012，博士生导师：冯亚青教授，课题为卟啉化学），博士毕业后赴奥地利因斯布鲁克大学进行博士后研究（2012–2016，博士后导师：Bernhard Kräutler 教授，课题为叶绿素代谢产物化学）。2016 年底加入华东理工大学解永树教授课题组开展卟啉有机光电材料研究。我们小组主要是围绕独特的吡咯单元来构建新颖共轭体系（如芳香稠环卟啉、芳香稠环线性多吡咯、聚吡咯等），并探索相关应用。基于上述研究，我们在化学类专业期刊上发表多篇学术论文，主持国家自然科学基金委项目 2 项（2018–2020 青年项目和 2021–2024 面上项目）和上海市科委项目 2 项（2017–2019 上海市浦江人才项目和 2020–2023 上海市自然科学基金）。

研究方向

多吡咯功能分子的合成与应用

研究成果及主要发表文章

- [1] Zou, J.#; Wang, Y.#; Baryshnikov, G.; Luo, J.; Wang, X.; Ågren, H.; Li, C.*; Xie, Y.* Efficient dye sensitized solar cells based on a new class of doubly concerted companion dyes, *ACS Applied Materials & Interfaces*, 2022, 14(29): 33274-33284.
- [2] Wang, X.; Wang, Y.; Zou, J.; Luo, J.; Li, C.*; Xie, Y.* Efficient solar cells sensitized by organic concerted companion dyes suitable for indoor lamps, *ChemSusChem*, 2022, e202201116.
- [3] Cao, G.; Baryshnikov, G.; Chen, C.; Chen, L.; Zhao, T.; Fu, S.; Jiang, Z.; Liu, X.*; Li, Q.; Xie, Y.; Li, C.* Porphyrindiene-based tandem Diels-Alder reaction for preparing low-symmetry π -extended porphyrins with push-pull skeletons. *The Journal of Organic Chemistry*, 2022, 87(14): 9001-9010.
- [4] Luo, J.; Xie, Z.; Zou, J.; Wu, X.*; Gong, X.*; Li, C.*; Xie, Y.* Efficient dye-sensitized solar cells based on concerted companion dyes: Systematic optimization of thiophene units in the organic dye components. *Chinese Chemical Letters*, 2022, 33(9): 4313-4316.
- [5] Zou, J.; Tnag, Y.; Baryshnikov, G.; Yang, Z.; Mao, R.; Feng, W.; Guan, J.; Li, C.*; Xie, Y.* Porphyrins containing a tetraphenylethylene-substituted phenothiazine donor for fabricating efficient dye sensitized solar cells with high photovoltages. *Journal of Materials Chemistry A*, 2022, 10(3): 1320-1328.
- [6] Chen, C.; Li, D.; Cao, G.; Qin, Z.; Xu, Y.; Liu, X.*; Li, Q.; Xie, Y.; Li, C.* Solvent-regulated biomorphs from the intense π, π -mediated assemblies of tetracenequinone fused porphyrin. *CrystEngComm*, 2021, 23(43): 7565-7569.
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- [8] Li, C.#; Zhang, K.#; Ishida, M.; Li, Q. Z.; Shimomura, K.; Baryshnikov, G.; Li, X.; Savage, M.; Wu, X.-Y.; Yang, S. H.; Furuta, H.*; Xie, Y.* Tripyrrin-armed isosmaragdyrins: synthesis, heterodinuclear coordination, and protonation-triggered helical inversion. *Chemical Science*, 2020, 11(10): 2790-2795.
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- [10] Shao, J.; Li, C.*; Kong, J.; Jiang, H.; Zhao, S.; Li, M.; Liang, X.; Zhu, W.; Xie, Y.* Regioselective oxidative ring cleavage of a phlorin analogue: An approach for synthesizing linear tetrapyrroles. *Organic Letters*, 2018, 20(7): 1941-1944.
- [11] Li, C.; Wurst, K.; Kräutler, B.* A dipyrin programmed for covalent loading with fullerenes. *Chemistry-a European Journal*, 2018, 24(40): 10032-10037.
- [12] Li, C.; Zhang, J.; Song, J.; Xie, Y.*; Jiang, J. Synthetic porphyrin chemistry in China. *Science China-Chemistry*, 2018, 61(5): 511-514.
- [13] Li, C.; Liu, X.; Shao, J.; Su, G.; Xie, Y.* Synthesis of a doubly SO₂-fused phlorin: Tuning the structure and properties by the SO₂ groups. *Journal of Porphyrins and Phthalocyanines*, 2018, 22(9-10): 799-806.
- [14] Kong, J.; Shao, J.; Li, C.*; Qi, D.; Li, M.; Liang, X.; Zhu, W.; Jiang, J.; Xie, Y.* Neo-N-confused phlorins and phlorinone: rational synthesis and tunable properties. *Organic Letters*, 2017, 19(3): 650-653.