

## 个人简介

周正, 1989 年生于山西, 理学博士, 上海市海外高层次人才计划 (2021) 入选者, 同济大学“青年百人计划” (2021) 特聘研究员。主要从事碳纳米分子结构的相关研究, 设计基于碳纳米分子不同尺度的功能配合物, 并利用单晶 X 射线衍射技术, 分析探究碳纳米分子的结构响应规律以及材料的构效关系。发表学术论文 37 篇, 以第一作者身份发表论文 16 篇, 包括 *Angew. Chem. Int. Ed.* (7 篇), *J. Am. Chem. Soc.* (1 篇), *Chem. Sci.* (2 篇), *Chem. Commun.* (2 篇) 等。

## 教育工作背景

2021.9–至今	特聘研究员, 材料科学与工程学院, 同济大学	
2020.5–2021.8	博士后, 化学系, 纽约州立大学奥尔巴尼分校	(导师: Marina. A. Petrukhina)
2013.8–2020.5	博士, 化学, 纽约州立大学奥尔巴尼分校	(导师: Marina. A. Petrukhina)
2008.6–2012.6	学士, 化学工程与工艺, 苏州大学	(导师: 钟志远)

## 研究方向

1. 碳纳米分子的化学活性及功能分子的结构设计
2. 碳纳米金属簇的结构设计及光学性质研究
3. 碳纳米金属配合物的磁性材料
4. 碳纳米框架材料的设计和应用

## 代表性论文

1. **Z. Zhou**, D. T. Egger, C. Hu, M. Pennachio, Z. Wei, R. K. Kawade, Ö. Üngör, R. Gershoni-Poranne, M. A. Petrukhina, I. V. Alabugin. Localized antiaromaticity hotspot drives reductive dehydrogenative cyclizations in bis- and mono-helicenes. *J. Am. Chem. Soc.* 2022, *144*, 12321-12338.
2. **Z. Zhou**, J. M. Fernández-García, Y. Zhu, P. J. Evans, R. Rodríguez, J. Crassous, Z. Wei, I. Fernández, M. A. Petrukhina, N. Martín. Site-specific reduction-induced hydrogenation of a helical bilayer nanographene with K and Rb metals: Electron multiaddition and selective Rb<sup>+</sup> complexation. *Angew. Chem. Int. Ed.* 2022, e202115747.
3. **Z. Zhou**, J. McNeely, J. Greenough, Z. Wei, H. Han, M. Rouzières, A. Yu. Rogachev, R. Clérac, M. A. Petrukhina. Lanthanide-mediated tuning of electronic and magnetic properties in heterotrimetallic cyclooctatetraenyl multidecker self-assemblies. *Chem. Sci.* 2022, *13*, 3864-3874.
4. **Z. Zhou**, Y. Zhu, Z. Wei, J. Bergner, C. Neiß, S. Doloczi, A. Görling, M. Kivala, M. A. Petrukhina. Reversible structural rearrangement of  $\pi$ -expanded cyclooctatetraene upon two-fold reduction with alkali metals. *Chem. Commun.* 2022, *58*, 3206-3209.
5. **Z. Zhou**, Y. Zhu, J. M. Fernández-García, Z. Wei, I. Fernández, M. A. Petrukhina, N. Martín. Stepwise reduction of a corannulene-based helical molecular nanographene with Na metal. *Chem. Commun.* 2022, *58*, 5574-5577.
6. **Z. Zhou**, Z. Wei, K. Ikemoto, S. Sato, H. Isobe, M. A. Petrukhina. Chemical reduction of nanosized [6]cyclo-2,7-naphthylene macrocycle. *Angew. Chem. Int. Ed.* 2021, *60*, 12201-11205.

7. **Z. Zhou**, Y. Zhu, Z. Wei, J. Bergner, C. Neiß, S. Doloczki, A. Görling, M. Kivala, M. A. Petrukhina. Reduction of  $\pi$ -expanded cyclooctatetraene with lithium: Stabilization of the tetraanion through internal Li<sup>+</sup> coordination. *Angew. Chem. Int. Ed.* 2021, *60*, 3510-3514.
8. **Z. Zhou**, Ö. Üngör, Z. Wei, M. Shatruk, A. Tsybizova, R. Gershoni-Poranne, M. A. Petrukhina. Tuning magnetic interactions between triphenylene radicals by variation of crystal packing in structures with alkali metal counterions. *Inorg. Chem.* 2021, *60*, 14844-14853.
9. **Z. Zhou**, Z. Wei, T. Hirao, T. Amaya, M. A. Petrukhina. Structural consequences of two-fold deprotonation of sumanene: Embedding two Cp-rings into a nonplanar carbon framework. *Organometallics* 2021, *40*, 2023-2026.
10. **Z. Zhou**, Z. Wei, T. A. Schaub, R. Jasti, M. A. Petrukhina. Structural deformation and host-guest properties of doubly-reduced cycloparaphenylenes, [n]CPPs<sup>2-</sup> (n = 6, 8, 10, and 12). *Chem. Sci.* 2020, *11*, 9305-9401.
11. **Z. Zhou**, L. Fu, Y. Hu, X.-Y. Wang, Z. Wei, A. Narita, K. Müllen, M. A. Petrukhina. Compressing double [7]helicene by successive charging with electrons. *Angew. Chem. Int. Ed.* 2020, *59*, 15923-15927.
12. **Z. Zhou**, R. K. Kawade, Z. Wei, F. Kuriakose, Ö. Üngör, M. Jo, M. Shatruk, R. Gershoni-Poranne, M. A. Petrukhina, I. V. Alabugin. Negative charge as a lens for concentrating antiaromaticity: Using a pentagonal "defect" and helicene strain for cyclizations. *Angew. Chem. Int. Ed.*, 2020, *59*, 1256-1262.
13. **Z. Zhou**, X.-Y. Wang, Z. Wei, K. Müllen, M. A. Petrukhina. Charging OBO-fused double [5]helicene with electrons. *Angew. Chem. Int. Ed.* 2019, *58*, 14969-14973.
14. **Z. Zhou**, Z. Wei, Y. Tokimaru, S. Ito, K. Nozaki, M. A. Petrukhina. Stepwise reduction of azapentabenzocorannulene. *Angew. Chem. Int. Ed.* 2019, *58*, 12107–12111.
15. **Z. Zhou**, S. N. Spisak, Q. Xu, A. Yu. Rogachev, Z. Wei, M. Marcaccio, M. A. Petrukhina. Fusing planar group to a bowl: Electronic and molecular structure, aromaticity and solid state packing of naphthocorannulene and its anions. *Chem. Eur. J.* 2018, *24*, 3455–3463.
16. **Z. Zhou**, J. Greenough, Z. Wei, M. A. Petrukhina. The dinuclear scandium(III) cyclooctatetraenyl chloride complex di- $\mu$ -chlorido-bis[( $\eta^8$ -cyclooctatetraene)(tetrahydrofuran- $\kappa$ O)scandium(III)]. *Acta Crystallogr., Sect. C: Struct. Chem.* 2017. *73*, 420–423.