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Editorial

The 10th macrocyclic arene supramolecular chemistry symposium

In the last few decades, there has been a rapid emergence and growing interest in synthetic macrocyclic arenes, such as calixarenes [1,2], cyclophanes [3], cyclotrimeratrylenes [4], pillararenes [5–7], and other novel macrocyclic arenes [8–10]. These molecules have garnered significant attention in supramolecular chemistry for their fascinating structures, intrinsic cavities, ease of structural and property modifications and wide range of applications [11–14].

The Macrocyclic Arene Supramolecular Chemistry Symposium (MASCS) was established in Hangzhou in 2011 by Feihe Huang, along with Derong Cao, Junli Hou, Chunju Li, and Leyong Wang. This symposium aims to provide a high-level platform for young scientific researchers, students, and industry professionals involved in macrocyclic arene chemistry and its related research fields. The symposium serves as a forum to showcase the latest advancements in this field and foster deep collaboration among Chinese scholars. The inaugural symposium was hosted by Zhejiang University in Hangzhou. Subsequently, the 2nd to 9th annual symposia were successfully held at Nanjing University, Fudan University, South China University of Technology, Jilin University, Central China Normal University, Yangzhou University, Northwest A&F University, and Sichuan University from 2012 to 2019. Over the years, the symposium has witnessed a growing number of attendees and a diversified range of topics. As a result, the influence of macrocyclic arene chemistry has been growing, attracting many young students and scholars to join this research field. Chinese macrocyclic arene supramolecular chemistry has made significant progress, particularly the research of macrocyclic host molecules with aromatic building blocks, positioning itself at the forefront of international research.

Following the three-year span of the COVID-2019 pandemic, the 10th MASCS was reopened and successfully held in Fuzhou from May 12 to 14, 2023 (Fig. 1). Professor Meijin Lin from Fuzhou University organized the symposium, with co-hosting support from the Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences (FJIRSM) and Sanming University. Compared to its predecessors, the 10th symposium experienced a notable surge in participation, attracting a total of 266 attendees including 146 researchers and 120 graduate students from 23 provinces, autonomous regions, and municipalities across China (Fig. 2). This substantial increase in attendance well reflects the growing influence of macrocyclic arene supramolecular chemistry in China, with more researchers engaging in this vibrant research field.

The symposium featured 9 plenary lectures and 71 invited talks, encompassing the latest research findings across various areas of macrocyclic arene chemistry, including the synthesis of new types



Fig. 1. The introductory session of 10th MASCS.

of macrocyclic arenes, structure-function regulation, and applications of macrocyclic arenes in diverse fields such as luminescent materials, catalysis, biomedical science, environmental monitoring, and gas adsorption.

Furthermore, the symposium featured a poster session for graduate students to showcase their research and engage in academic discussion with leaders in the field. The Postgraduate Poster Award of Macrocyclic Arene Supramolecular Chemistry Symposium was established to highlight outstanding poster presentations. Congratulations to Yandie Liu (Guangzhou), Yifei Zhang (Hefei), Rongbo Zhang (Nanjing), Kai Qu (Hangzhou), Shuqi Chen (Xiamen), and Aimin Li (Changsha) for their well-deserved recognition.

In addition, the symposium honored outstanding young scientists who have made significant contributions to the field of macrocyclic arene and supramolecular chemistry in 2018 through the Rising Star Award of Macrocyclic Arene Supramolecular Chemistry. Congratulations to Junli Hou (Shanghai), Wei Jiang (Sehznhen) (2018), Chunju Li (Tianjin), Ruibing Wang (Macau), and Liang Zhao (Beijing) (2019) for receiving Rising Star Award previously. In this symposium, Liping Cao (Xi'an), Xiaoyu Hu (Nanjing), Feng Wang (Hefei) (2020), Hao Li (Hangzhou), Qiqiang Wang (Beijing), Lin Xu (Shanghai) (2021), Huan Cong (Beijing), Xuzhou Yan (Shanghai), and Mingming Zhang (Xi'an) (2022) received Rising Star Award (Fig. 3). Liping Cao conducted in-depth research in the field of chiral adaptive responsive molecular hosts, including macrocycles, cages, and supramolecular organic frameworks. Xiaoyu Hu did excellent work in orthogonal supramolecular assemblies of



Fig. 2. The participants of 10th MASCS.



Fig. 3. The ceremony for Rising Star Award of Macrocylic Arene Supramolecular Chemistry.

macrocyclic hosts and their functionalization. Feng Wang provided supramolecular polymerization/copolymerization strategy to construct functional supramolecular assemblies. Hao Li focused on the precise control over the self-assembly of organic cages via intramolecular forces. Qiqiang Wang applied anion-recognition directed strategy to supramolecular catalysis. Lin Xu was dedicated to explore fluorescent coordination-driven supramolecular self-assemblies and their functionalization. Huan Cong made outstanding contributions to the design and synthesis of rigid macrocycles. Xuzhou Yan developed new synthetic strategy (supramolecular polymerization followed by interlocking) for building novel mechanically interlocked polymers (MIPs), and deep study of relationship between microscopic mechanical motion and macroscopic mechanical properties of MIPs. Mingming Zhang did remarkable work in emissive multicomponent metallacages and their applications in chemical and biological sensing, light-emitting, light-harvesting, photocatalysis and so on. The laureates delivered lectures and shared with attendees the progress they have made in recent years in this symposium.

Finally, we extend our heartfelt gratitude to Fuzhou University, Fujian Institute of Research on the Structure of Matter, Sanming University and *Sci. China Chem.* for their generous financial support. We also express our appreciations to *Chin. Chem. Lett.*, to all lecturers who contributed their excellent presentations, as well as to all scholars and graduate students who attended this symposium, contributing to its success.

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References

- [1] Y.H. Ding, J.M. Jiao, B.B. Sun, et al., *Chin. Chem. Lett.* 32 (2021) 3539–3543.
- [2] X. Zhang, S. Tong, J.P. Zhu, M.X. Wang, *Chem. Sci.* 14 (2023) 827–832.
- [3] Y.W. Li, Y.H. Dong, L. Cheng, et al., *J. Am. Chem. Soc.* 141 (2019) 8412–8415.
- [4] M.J. Hardie, *Chem. Soc. Rev.* 39 (2010) 516–527.
- [5] K. Du, P. Demay-Drouhard, K. Samanta, et al., *J. Org. Chem.* 85 (2020) 11368–11374.
- [6] J.B. Yao, H. Mizuno, C. Xiao, et al., *Chem. Sci.* 12 (2021) 4361–4366.
- [7] H. Zhu, Q. Li, Z. Gao, et al., *Angew. Chem. Int. Ed.* 59 (2020) 10868–10872.
- [8] B. Teichmann, A.M. Krause, M.J. Lin, F. Würthner, *Angew. Chem. Int. Ed.* 134 (2022) e202117625.
- [9] X.Y. Huang, Q.S. Zheng, L.M. Zou, et al., *ACS Catal.* 12 (2022) 4545–4553.
- [10] S.Y. Zhong, L.Y. Zhu, S. Wu, Y.M. Li, M.J. Lin, *Chin. Chem. Lett.* 34 (2023) 108124.
- [11] M. Xue, Y. Yang, X.D. Chi, Z.B. Zhang, F.H. Huang, *Acc. Chem. Res.* 45 (2012) 1294–1308.
- [12] X.N. Han, Y. Han, C.F. Chen, *Chem. Soc. Rev.* 52 (2023) 3265–3298.
- [13] J.R. Wu, Y.W. Yang, *Chem. Commun.* 55 (2019) 1533–1543.
- [14] J. Cheng, B.B. Gao, H. Tang, et al., *Sci. China Chem.* 65 (2022) 539–545.