

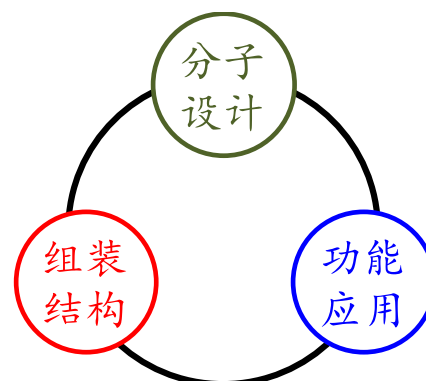
| <u>基本信息</u> | |
|-----------------|--|
| 姓名 | 赵伟 |
| 职称 | 预聘副教授/特别研究员(博导) |
| 学术兼职 | 无 |
| 联系电话 | 18810401854 |
| 电子邮件 | zhaochem@bit.edu.cn |
| 系/研究所 | 无机化学研究所 |
| ORCID | https://orcid.org/0000-0001-8941-3044 |
| <u>教育背景</u> | |
| 2011.09-2016.07 | 中国科学院大学化学研究所, 有机化学专业, 理学博士 |
| 2007.09-2011.07 | 东北林业大学, 化学专业, 化学学士 |
| <u>工作经历</u> | |
| 2020.07-至今 | 北京理工大学化学与化工学院, 预聘副教授, 博士生导师 |
| 2016.11-2020.01 | 美国印第安纳大学博士后, 合作导师 Prof. Amar Flood |
| <u>研究方向</u> | |
| 1. | 新型超分子主客体作用的设计 |
| 2. | 超分子体系的精确构筑, 包括高级自组装与超分子聚合物的制备 |
| 3. | 新型多功能超分子自适应材料的设计与制备 |
| <u>荣誉奖励</u> | |
| 1. | Student Travel Award, RE ³ Workshop (美国路易维尔 2017.5) |
| 2. | Outstanding Poster Award, The 5th Notre Dame-Purdue Symposium on Soft Matter & Polymers (美国圣母大学 2018.10) |
| 3. | Best Oral Presentation Award, 6th Annual Symposium on Materials Research (美国印第安纳大学 2019.7) |
| <u>承担项目</u> | |
| 1. | 北京理工大学青年教师学术启动计划 (2020.7-2023.12), 主持, |



| | |
|----|--|
| 2. | Birght and Lightfast Fluorescent Pigments for Paints, Polymers, and Inks 美国自然科学基金 SBIR 附属项目，6.8 万美元，主持，已结题。 |
|----|--|

研究成果

迄今在国内外学术刊物上发表学术论文 18 篇，包括 *Chem. Soc. Rev.*, *Science*, *Chem*, *J. Am. Chem. Soc.*, *Angew. Chem. Int. Ed.*。主要研究方向侧重于阴离子配位化学及应用。旨在以阴离子化学为核心，探索“分子设计”、“组装结构”和“材料性质”三者之间的相互关系，通过在分子层面上的微观调控来实现对合成（组装）材料宏观性质的精确控制。



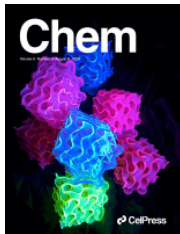

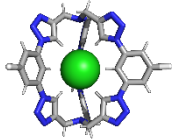

欢迎对超分子化学有兴趣、热爱科研、喜欢交流的同学加入我们！

| | |
|----|--|
| 1. | <p>首例酸碱调控的芳香族三唑折叠体用于氯离子的提取和释放，制定了评价离子泵效率的标准方法。</p> |
|----|--|

| | |
|----|--|
| 2. | <p>溶液中稳定存在的磷酸根（亚磷酸根）离子对的首次报道，并将其用于构筑新型的超分子聚合物。（在目前所报道的超过 15000 例的超分子聚合物中，阴离子络合作用驱动的超分子聚合物不到 20 例。）</p> |
|----|--|

| | |
|----|---|
| 3. | <p>新型的化学计量比控制的超分子聚合物的制备。简单改变两个单体（磷酸根和大环分子）的混合比例实现了对超分子同聚物和共聚物序列的精确控制，两种超分子聚合物表现了不同的黏粘性。</p> |
|----|---|

发表论文

| | | |
|----|---|---|
| 18 | Zhao, W. ; Flood, A. H.; White, N. G. Recognition and applications of anion–anion dimers based on <i>anti</i> -electrostatic hydrogen bonds (AEHBs) <i>Chem. Soc. Rev.</i> 2020 online | |
| 17 | Benson, C. R.; Kacenauskaite, L.; VanDenburgh, K. L.; Zhao, W. ; Qiao, B.; Sadhukhan, T.; Pink, M. Chen, J.; Borgi, S.; Chen, C. H.; Davis, B. J.; Simon, Y. C.; Raghavachari, K.; Laursen, B. W.; Flood, A. H. Plug-and-play Optical Materials from Fluorescent Dyes and Macrocycles. <i>Chem</i> 2020 , <i>6</i> , 1978–1997. (cover) |  |
| 16 | Grooms, A. J.; Neal, J. F.; Ng, K. C.; Zhao, W. ; Flood, A. H.; Allen, H. C. Thermodynamic Signatures of the Origin of Anti-Hofmeister Selectivity for Phosphate at Aqueous Interfaces. <i>J. Phys. Chem. A</i> 2020 , <i>124</i> , 5621–5630. (cover) |  |
| 15 | Zhao, W. ; Tropp, J.; Qiao, B.; Pink, M.; Azoulay, J. D.; Flood, A. H. Tunable Adhesion from Stoichiometry-controlled and Sequence-defined Supramolecular Polymers Emerges Hierarchically from Cyanostar-stabilized Anion-anion Linkages. <i>J. Am. Chem. Soc.</i> 2020 , <i>142</i> , 2579-2591. Highlighted in <i>JACS</i> spotlights: Supramolecular polymers stick it with stoichiometry, <i>J. Am. Chem. Soc.</i> 2020 , <i>142</i> , 3275. | |
| 14 | Liu, Y.; Zhao, W. ; Chen, C. H.; Flood, A. H. Chloride Capture using a C–H Hydrogen-bonding Cage. <i>Science</i> , 2019 , <i>365</i> , 159–161. |  |
| 13 | Zhao, W. ; Qiao, B.; Tropp, J.; Pink, M.; Azoulay, J. D.; Flood, A. H. Linear Supramolecular Polymers Driven by Anion-Anion Dimerization of Difunctional Phosphonate Monomers inside Cyanostar Macrocycles. <i>J. Am. Chem. Soc.</i> 2019 , <i>141</i> , 4980–4989. (cover) |  |
| 12 | Neal, J. F.; Zhao, W. ; Grooms, A. J.; Smeltzer, M. A.; Shook, B. M.; Flood, A. H.; Allen, H. C. Interfacial Supramolecular Structures of Amphiphilic Receptors Drive Phosphate Recognition. <i>J. Am. Chem. Soc.</i> 2019 , <i>141</i> , 7876–7886. | |
| 11 | Liu Y.; Parks, F. C.; Zhao, W. ; Flood, A. H. Sequence-controlled Stimuli-Responsive Single-Double Helix Conversion between 1:1 and 2:2 Chloride-Foldamer Complexes. <i>J. Am. Chem. Soc.</i> 2018 , <i>140</i> , 15477–15486. | |

| | | |
|----|--|---|
| 10 | Qiao, B.; Leverick, G.; Zhao, W. ; Johnson, J.; Flood, A. H.; Shao-Horn, Y. Supramolecular Regulation of Anions Enhances Conductivity and Transference Number of Lithium in Liquid Electrolytes. <i>J. Am. Chem. Soc.</i> 2018 , <i>140</i> , 10932–10936. (cover) |  |
| 9 | Neal, K.; Zhao, W. ; Grooms, A.; Flood, A. H.; Allen, H. C. Arginine-phosphate Recognition Enhanced in Phospholipid Monolayers at Aqueous Interfaces. <i>J. Phys. Chem. C</i> 2018 , <i>122</i> , 26362–26371. (cover) |  |
| 8 | Zhao, W. [†] ; Qiao, B. [†] ; Chen, C. H.; Flood, A. H. High-Fidelity Multistate Switching with Anion-Anion and Acid-Anion Dimers of Organophosphates in Cyanostar Complexes. <i>Angew. Chem. Int. Ed.</i> 2017 , <i>56</i> , 13083–13087. |  |
| 7 | Yang, L.; Zhao, W. ; Che, Y.; Wang, Y.; Jiang, H. Influence of Terminal Substituents on the Halide Anion Binding of Foldamer-based Receptors. <i>Chin. Chem. Lett.</i> 2017 , <i>28</i> , 1659–1662. | |
| 6 | Zhao, W. ; Huang, F.; Wang, Y.; Li, Q.; Shang, J.; Che, Y.; Jiang, H. Aryl-triazole Foldamers with Ethynyl Spacers as Effective Receptors for Halides and Oxyanions. <i>Tetrahedron Lett.</i> 2016 , <i>57</i> , 1691–1694. | |
| 5 | Huang, F.; Zhao, W. ; Che, Y.; Jiang, H. Review and Prospect of Molecular Machines: Introduction to Nobel Prize in Chemistry 2016. <i>Chin. J. Chem. Edu.</i> 2016 , <i>37</i> (22), 1–5. | |
| 4 | Wang, Y.; Zhao, W. ; Bie, F.; Wu, L.; Li, X.; Jiang, H. Ruthenium(II) Complexes of Aryl-triazole Foldamers as Receptors for Anions. <i>Chem. Eur. J.</i> 2016 , <i>22</i> , 5233–5242. | |
| 3 | Shang, J. [†] ; Zhao, W. [†] ; Li, X.; Wang, Y.; Jiang, H. Aryl-triazole Foldamers Incorporating Pyridinium Motif for Halide Anions Binding in Aqueous Media. <i>Chem. Commun.</i> 2016 , <i>52</i> , 4505–4508. | |
| 2 | Zhao, W. ; Wang, Y.; Shang, J.; Che, Y.; Jiang, H. Acid/Base-Mediated Uptake and Release of Halide Anions with a Preorganized Aryl-triazole Foldamer. <i>Chem. Eur. J.</i> 2015 , <i>21</i> , 7731–7735. | |
| 1 | Shang, J.; Si, W.; Zhao, W. ; Che, Y.; Hou, J.; Jiang, H. Preorganized Aryl-triazole Foldamers as Effective Transmembrane Transporters for Chloride Anion. <i>Org. Lett.</i> 2014 , <i>16</i> , 4008–4011. | |