



Macrocyclic Compounds



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- Organic Chemistry
- Analytical Chemistry
- Biochemistry
- Material Chemistry

Macrocyclic Compounds

■ Crown Ether

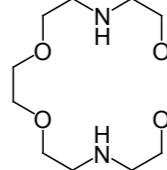
108933



66943-05-3

1-Aza-15-crown-5, 98%

306601

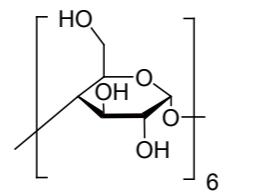


23978-55-4

4,13-Diaza-18-crown-6-ether, 96%

■ Cyclodextrin

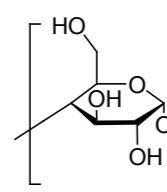
181931



10016-20-3

α-Cyclodextrin, 98%

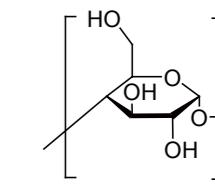
972167



7585-39-9

β-Cyclodextrin, 98%

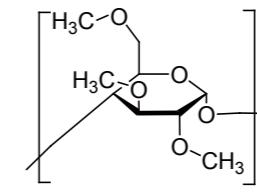
474982



17465-86-0

γ-Cyclodextrin, 98%

540879



55216-11-0

Trimethyl-β-cyclodextrin, 98%

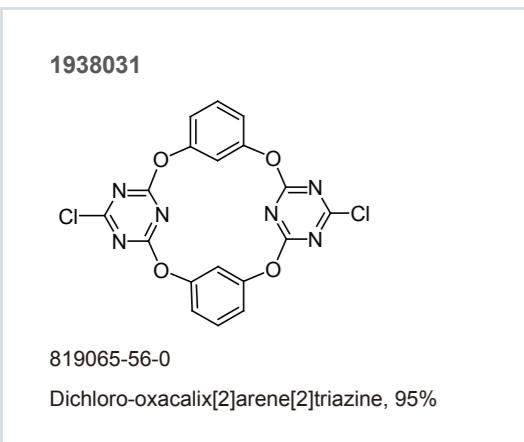
Macrocyclic Compounds

Macrocyclic compounds are important tools to study chemistry and supramolecular science.

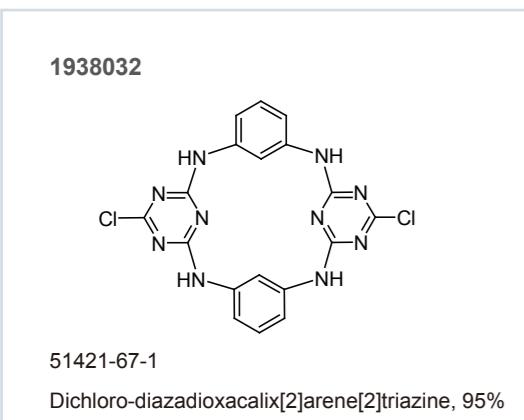
They are in an indispensable position in molecular recognition, molecular assembly, and functional materials building and so on.

As a professional supplier, J&K offers a complete inventory of macrocyclic compounds include:

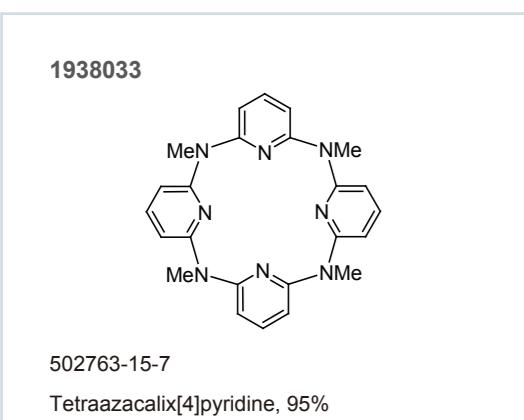
■ Heterocalixaromatics and Corona[n]arenes



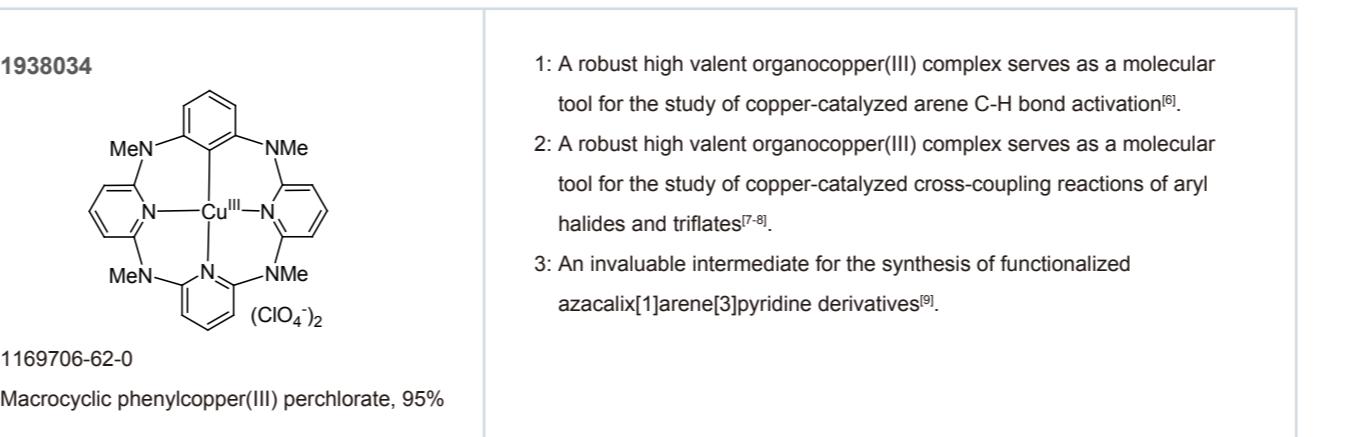
- 1: A versatile platform for functionalized oxacalix[2]arene[2]triazines based on convenient and practical nucleophilic aromatic substitutions^[1].
- 2: A selective macrocyclic host for hydrogenbond donors^[2].
- 3: A powerful macrocyclic host for study of anion recognition by means of the formation of anion- π complexe^[3].



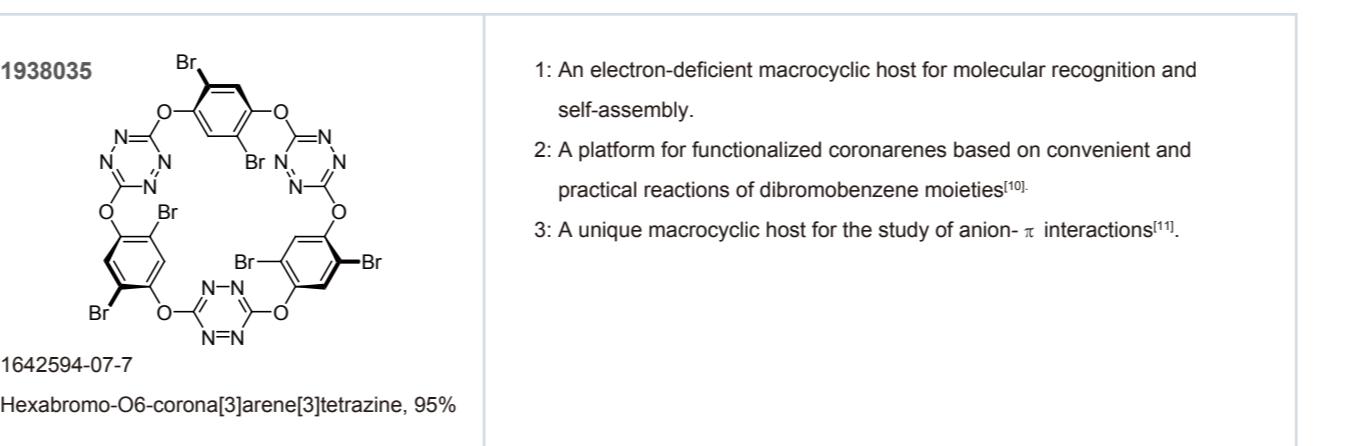
- 1: A versatile platform for functionalized oxacalix[2]arene[2]triazines based on convenient and practical nucleophilic aromatic substitutions on chlorotriazines and functionalization on the bridging nitrogen atoms^[4].
- 2: A powerful component for molecular self-assembly because of the formation of a hydrogen bond network^[2].



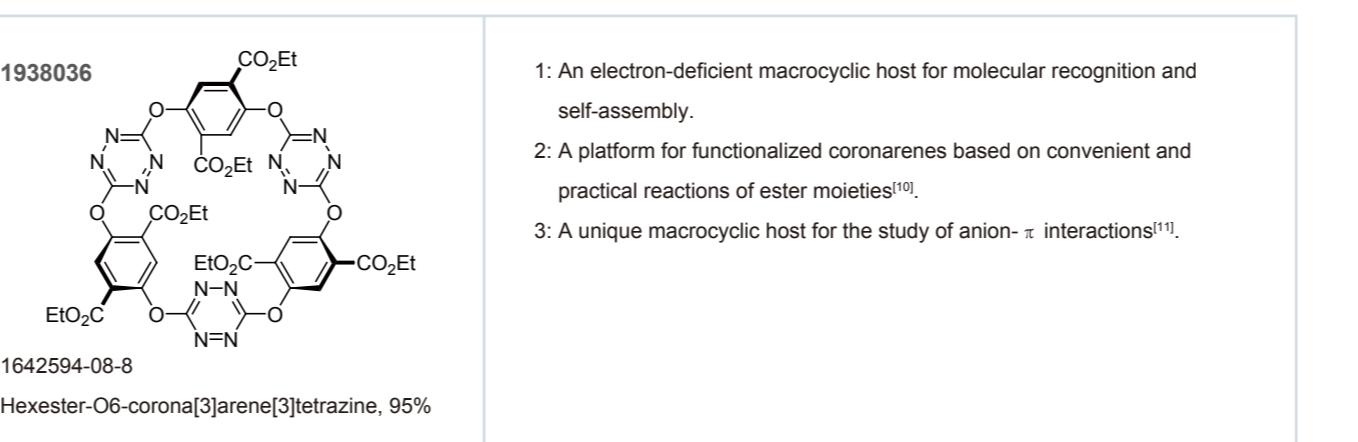
- 1: A versatile and selective macrocyclic host for transition metal ions.
- 2: A selective macrocyclic host for hydrogen bond donors^[2].
- 3: A potential Lewis base catalyst for synthesis^[5].



- 1: A robust high valent organocopper(III) complex serves as a molecular tool for the study of copper-catalyzed arene C-H bond activation^[6].
- 2: A robust high valent organocopper(III) complex serves as a molecular tool for the study of copper-catalyzed cross-coupling reactions of aryl halides and triflates^[7-8].
- 3: An invaluable intermediate for the synthesis of functionalized azacalix[1]arene[3]pyridine derivatives^[9].



- 1: An electron-deficient macrocyclic host for molecular recognition and self-assembly.
- 2: A platform for functionalized coronarenes based on convenient and practical reactions of dibromobenzene moieties^[10].
- 3: A unique macrocyclic host for the study of anion- π interactions^[11].



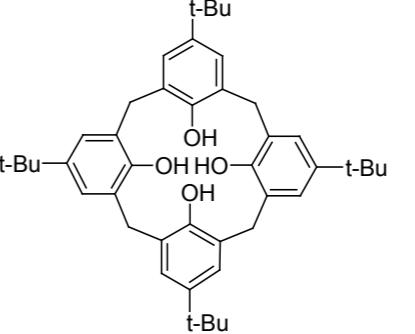
- 1: An electron-deficient macrocyclic host for molecular recognition and self-assembly.
- 2: A platform for functionalized coronarenes based on convenient and practical reactions of ester moieties^[10].
- 3: A unique macrocyclic host for the study of anion- π interactions^[11].

References:

- [1] Wang, Q. Q.; Wang, D. X.; Yang, H. B.; Huang, Z. T.; Wang, M. X. Synthesis, structure and molecular recognition of functionalised tetraoxacalix[2]arene[2]triazines. *Chem. Eur. J.* **2010**, *16*, 7265-7275.
- [2] Wang, M. X. Nitrogen and oxygen bridged calixaromatics: synthesis, structure, functionalization, and molecular recognition. *Acc. Chem. Res.* **2012**, *45*, 182-195.
- [3] Wang, D. X.; Wang, M. X. Anion-π interactions: generality, binding strength, and structure. *J. Am. Chem. Soc.* **2013**, *135*, 892-897.
- [4] Wang, Q. Q.; Wang, D. X.; Ma, H. W.; Wang, M. X. Synthesis of tetraazacalix[2]arene[2]triazines: tuning the cavity by the substituents on the bridging nitrogen atoms. *Org. Lett.* **2006**, *8*, 5967-5970.
- [5] Gong, H. Y.; Wang, D. X.; Zheng, Q. Y.; Wang, M. X. Highly selective complexation of metal ions by the self-tuning tetraazacalixpyridine macrocycles. *Tetrahedron* **2009**, *65*, 87-92.
- [6] Yao, B.; Wang, D.X.; Huang, Z. T.; Wang, M. X. Room-temperature aerobic formation of a stable aryl-Cu(III) complex and its reactions with nucleophiles: highly efficient and diverse arene C-H functionalizations of azacalix[1]arene[3]pyridine. *Chem. Commun.* **2009**, 2899-2901.
- [7] Zhang, H.; Yao, B.; Zhao, L.; Wang, D. X.; Xu, B. Q.; Wang, M. X. Direct Synthesis of High-Valent Aryl-Cu(II) and Aryl-Cu(III) Compounds: Mechanistic insight into arene C-H bond metatlation. *J. Am. Chem. Soc.* **2014**, *136*, 6326-6332.
- [8] Yao, B.; Liu, Y.; Zhao, L.; Wang, D. X.; Wang, M. X. Designing a Cu(II)-ArCu(II)-ArCu(III)-Cu(I) catalytic cycle: Cu(II)-catalyzed oxidative arene C-H bond azidation with air as an oxidant under ambient conditions. *J. Org. Chem.* **2014**, *79*, 11139-11145.
- [9] Long, C.; Zhao, L.; You, J. S.; Wang, M. X. Copper(I)-catalyzed halogenation and acyloxylation of aryl triflates through a copper(I)/copper(III) catalytic cycle. *Organometallics* **2014**, *33*, 1061-1067.
- [10] Guo, Q. H.; Fu, Z. D.; Zhao, L.; Wang, M. X. Synthesis, structure, and properties of O6-corona[3]arene[3]tetrazines. *Angew. Chem. Int. Ed.* **2014**, *53*, 13548-13552.
- [11] Guo, Q. H.; Zhao, L.; Wang, M. X. Synthesis and molecular recognition of water-soluble S6-corona[3]arene[3]pyridazines. *Angew. Chem. Int. Ed.* **2015**, *54*, 8386-8389.

■ Calixarenes

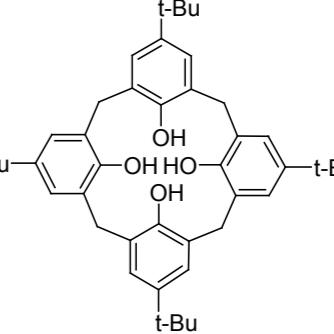
905086



60705-62-6

4-tert-Butylcalix[4]arene, 98%

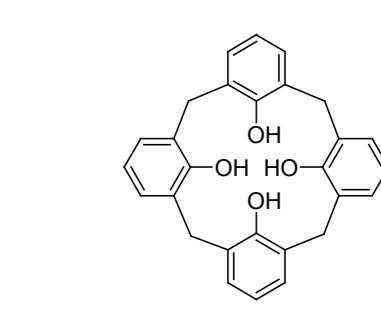
356860



60705-62-6

4-tert-Butylcalix[4]arene, 99%

620628



74568-07-3

Calix[4]arene, 98%