



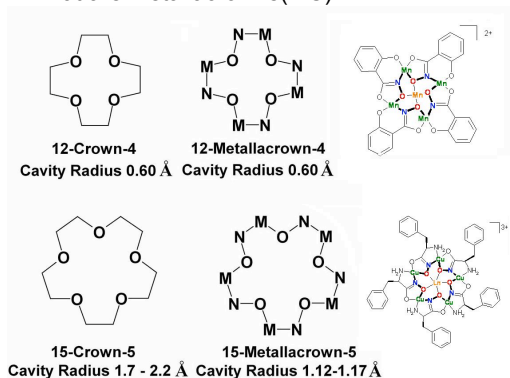
# Generating Capped Metallacrowns with a Guest Molecule

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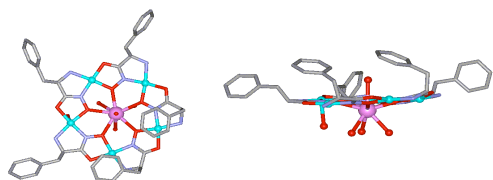


## Background

What are Metallacrowns(MC)?



Why metallacrowns can be used as host molecule?



1. benzyl side groups are all oriented to one face
2. Amphiphilic molecule, with a hydrophobic "pocket"
3. Five chiral centers

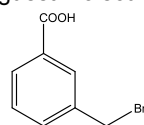
## Goal of our work

generate capped metallacrowns with a guest molecule



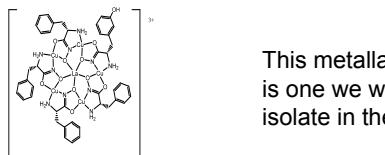
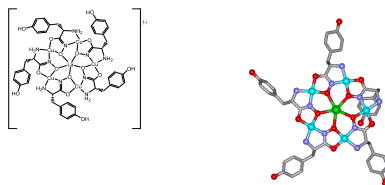
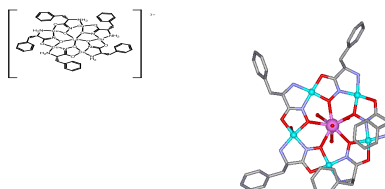
## Molecules we use

The guest molecule



3-(bromomethyl)benzoate

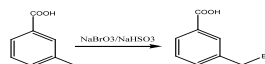
The host metallacrowns



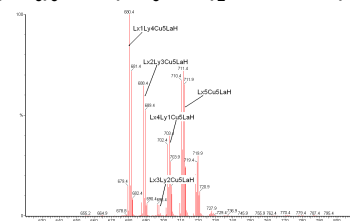
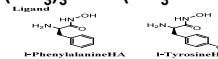
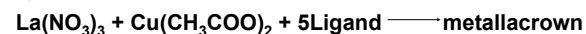
This metallacrown is one we want to isolate in the future

## Methods

Synthesis of guest molecule



Synthesis of metallacrowns



## Future works

1. Isolate La15-MC-5 with 4 PheHA and 1 TyrHA
2. Use the guest reacting with these three metallacrowns to produce crystals
3. Generate capped metallacrowns

## References

- [1] G. Mezei, C. M. Zaleski, V. C. Pecoraro, *Chem. Rev.* **2007**, 107, 4933-5003
- [2] C. S. Lim, A. C. V. Noord, J. W. Kampf, V. L. Pecoraro, *Eur. J. Inorg. Chem.* **2007**, 1347-1350

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