Contribution ID: 218 Type: Poster

Controlling the Host-Guest Chemistry of a [Fe4L4]8+ Tetrahedral Cage via Ligand Design

Thursday, 26 November 2015 13:30 (20 minutes)

A pair of related [Fe₄L₄]⁸⁺ tetrahedral cages were synthesised differing only in the electronic nature of the face-capping ligand. Cage 1 is comprised of four ligands containing a central triazine ring, whilst cage 2 is analogous utilising a benzene core. The cages were structurally characterised using X-ray crystallography performed at the Australian Synchrotron, which showed the cages to be flexible and adaptable. Solution based host-guest interactions were investigated by NMR spectroscopy, revealing that the cages are discriminating and selective in their host-guest behaviour.

Keywords

Host-Guest Chemistry, X-ray Crystallography, Metallo-Supramolecular Chemistry

Primary author: Mr STANILAND, Robert (University of Canterbury)

Co-author: Prof. KRUGER, Paul (University of Canterbury)

Presenter: Mr STANILAND, Robert (University of Canterbury)

Session Classification: Poster Session 1

Track Classification: Advanced Materials