



USER MEETING 2016

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Ansto



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Type: Oral

Chiral Coordination Polymers and Cages

Thursday, 24 November 2016 14:00 (15 minutes)

Chiral metal-organic materials, either infinite coordination polymers or discrete cages/capsules, are areas of considerable research interest due to their potential to act as catalysts for enantioselective reactions or agents to separate and purify racemic mixtures.

Towards these ends, we have recently been investigating a series of enantiopure dicarboxylate ligands, built using diimide scaffolds, their inclusion into both infinite and discrete complexes and the properties of these compounds towards a variety of guest species. Naphthalenediimides have been investigated for their ability to give rise to interpenetrated networks some of which have shown activity in the resolution of racemates by liquid chromatographic methods.

Coordination cages have been prepared in which the coordination of four amino acids around a copper paddlewheel induces helicity into the resulting M4L4 species. The direction of the helicity is a direct consequence of the handedness of the ligand that is used.

Keywords or phrases (comma separated)

Crystallography, coordination chemistry

Are you a student?

No

Do you wish to take part in</br>the Student Poster Slam?

No

Are you an ECR? (<5 yrs</br>since PhD/Masters)

No

What is your gender?

Male

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Session Classification: Concurrent Session 2: Advanced Materials II

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