



Contribution ID : 63

Type : Poster

Chiral CPs formed using chiral heterotopic ligands

Thursday, 25 November 2021 18:21 (1)

The use of heterotopic ligands in the synthesis of coordination polymers (CPs) using pyridyl groups and carboxylates have been extensive. But the use of chiral heterotopic ligands using pyridyl groups and phthalimide groups has not been explored. Chiral coordination polymers have been formed using leucine, phenylalanine and cysteine substituted pyridylphthalimide cores (L3pyph, M3pyph and L4pyph), where the pyridyl groups have been substituted in the 3 and 4 positions. One dimensional coordination polymers have been formed using L3pyph and P3pyph, where there are π - π interactions between parallel 1D chains. However, the use of more exotic amino acids such as cysteine, C3pyph, has allowed for a 2D coordination polymer to be formed through the formation of disulphide bonds between 1D chains. A two fold interpenetrated 2D dimensional coordination polymer has been formed using L4pyph and P4pyph. This illustrates that the substitution of the pyridyl group between the 3 and the 4 position has a major influence with the coordination polymers formed.

Level of Expertise

Student

Presenter Gender

Man

Pronouns

He/Him

Which facility did you use for your research

Australian Synchrotron

Students Only - Are you interested in AINSE student funding

No

Do you wish to take part in the Student Poster Slam

No

Condition of submission

Yes

Primary author(s) : Mr KYRATZIS, Nicholas (Monash University); Dr TURNER, David (Monash University)

Presenter(s) : Mr KYRATZIS, Nicholas (Monash University)

Session Classification : Poster Session

Track Classification : Chemistry, Soft Matter & Crystallography