Showcasing research from Prof. Yuichi Negishi's laboratory, Tohoku Univsersity, Japan.

Tunable structural rearrangement in Cu cluster assemblies through linker and solvent alterations

This paper introduces a facile, one-pot synthesis method for obtaining a range of crystalline Cu cluster-assembled materials through a liquid-liquid interfacial crystallization technique. Our approach demonstrates that the electronic environment of linker molecules plays a crucial role in constructing the geometry of cluster nodes and the overall dimensionality of the framework. Solvent effects further influence the electronic environment of linkers, leading to tunable rearrangements in cluster node size and geometry. Additionally, coordination sites of the linker molecules and architectural properties significantly affect the overall dimensionality of the frameworks.

As featured in:

See Sourav Biswas, Yuichi Negishi *et al.*, *Chem. Sci.*, 2025, **16**, 2600.

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