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Research keywords: (polyoxometalates, polyoxovanadate-based metal-organic polyhedra, Supramolecular cage)

Polyoxometalte-based nanoscale supramolecular cages are great challenges in the field of polyoxometalates. We designed and synthesised a series of polyoxometalate-based proton conducting materials. We designed and synthesised a series of polyoxometalate-based molecular cage with tetrahedral, octahedral and icosahedral symmetry based on polyoxovanadate-based molecular building blocks. The structures are characterized by single crystal X-ray diffraction, PXRD, FT-IR, TG, ESI-Ms, SEM, TEM and etc. These molecular cages can serve as host frameworks for guests as large as fullerene C60.

Possible Collaborations: Masahiro Sadakane

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