



Single crystals of a coordination polymer containing an organic polymer ligand! Organic polymers are usually amorphous or possess very low crystallinity. The metal complexes of organic polymeric ligands are also difficult to crystallize by traditional methods due to their poor solubilities and therefore, their three-dimensional structures could not be determined by single crystal X-ray crystallography due to the lack of single crystals. Here we report the crystal structure of a one-dimensional Zn(II) coordination polymer fused with an organic polymer ligand made *in situ* by [2+2] cycloaddition reaction of a six-fold metal-organic framework. It is also shown that this organic polymer ligand can be depolymerised in a single-crystal to single-crystal (SCSC) fashion by heating. One can potentially extend this strategy to make a range of monocrystalline metal organo-polymeric complexes and metal-organic organo-polymeric hybrid materials. Such highly monocrystalline metal complexes of organic polymers were hitherto inaccessible for materials researchers.

Metal-Organic Organo-Polymeric Hybrid Framework by Reversible [2+2] Cycloaddition Reaction by In-Hyeok Park, Anjana Chanthapally, Zhenjie Zhang, Shim Sung Lee, Michael J. Zaworotko and Jagadese J. Vittal, *Angewandte Chemie*, 2014, 53(2), 414.

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