

## **190f Synthesis and Characterization of Novel Metal-Organic Framework Structures**

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Construction of microporous metal-organic frameworks (MOF) by copolymerization of organic molecules with metal ions has received widespread attention in recent years. Their significant features, such as high porosity comparable to or larger than that of zeolites, thermal stability up to 300-400 °C and sorption selectivity among common organic solvents, make them a good candidate as sorbent materials.

A novel porphyrin framework, Zn(p-COO)TPP (PPMOF1) has been synthesized. X-ray analysis found out it has a infinite 2D open structure and maintain its structural integrity and porosity in the absence of guests molecule. Its performance as potential preconcentrator materials has been tested in a standard purge and trap micro system.