

## Post-synthesis Treatment of Zn-tetrakis(4-carboxyphenyl) porphyrin framework using Copper solution and its Catalytic Properties

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The MOF (Metal-Organic Framework) has received great attention due to numerous applications such as gas separation, purification, chemical sensing, drug delivery, storage materials and catalysis through changing SBU (Secondary building unit) and post-synthesis treatment.

Post-synthesis treatment includes introducing covalent attachment to the organic linker, grafting of organic molecules at metal sites coordinative vacancies created after solvent elimination and replacing the metal ion by suitable elements.

Herein, we report facile post-synthesis treatment of MOF consisting of tetrakis(4-carboxyphenyl) porphyrin, 4,4'-bipyridine and zinc nitrate hexahydrate (Zn-TCPP-MOF) and its copper analog (Cu-TCPP-MOF). The catalytic properties of Cu-TCPP-MOF were studied over the ethylbenzene oxidation using tert-Butyl hydroperoxide as an oxidant.