Kinetic Stability of Robust Metal–Organic Frameworks (MOFs) in Catalytic Reactions

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Abstract In the past few decades, researchers have ventured to search for kinetically stable framework materials as conventional ones were expensive and lack chemical robustness, which hinders their practical application. In this context, metal–organic frameworks (MOFs) have gained a lot of attention as metastable design catalysts for a broad range of chemical alterations including catalysis, gas storage, separation, and conversion, etc. MOFs are one the fastest emerging class of organic–inorganic hybrid crystalline porous material assembled with metal ions/clusters as nodes with organic linkers. Although MOFs inherit a unique set of properties including high porosity, ultra-high surface area, diverse composition, and versatile functionality,

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