Modular Programming of Hierarchy and Diversity in Polymer/Metal−Organic Framework Composites

Scientific Achievement
A series of polymer/MOF composites with tailored properties was prepared through post-synthetic modification of hierarchical MOF templates.

Significance and Impact
This modular programming approach provides a facile route to tailor hierarchy and diversity in multivariate composite systems.

Research Details
– Hierarchical MOFs were constructed with multiple “modules” (metal clusters, clickable linkers, and crosslinkers), which were then individually modified, e.g. via cross-linking or selective removal
– Control over functional group identity and apportionment can accordingly be achieved in polymer/MOF composites.