Metal-organic Framework (MOFs) materials are well known for their ultra-high surface areas and gas storage and separation properties. One strategy for enhancing the performance characteristics of MOFs is to post-synthetically line the pores with metal ions. Although this technique has led to improved gas separations the precise structural characterization of the ‘metalated’ MOF has proved elusive. Here we present that the post-synthetic addition of metals can give rise to materials with the potential to be developed for catalysis and gas adsorption. In addition the high crystallinity of MOFs allow for following reaction products via single crystal X-ray diffraction analysis [1].


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