

Showcasing research from Professor Run-Cang Sun and Ling-Ping Xiao's laboratory, Liaoning Key Lab of Lignocellulose Chemistry and BioMaterials, College of Light Industry and Chemical Engineering, Dalian Polytechnic University, Dalian, China.

Metal-organic framework-derived CuO catalysts for the efficient hydrogenolysis of hardwood lignin into phenolic monomers

This work reports a metal-organic framework (MOF) derived copper oxide catalyst (CuO/c-UiO-66), which exhibits superior catalytic properties toward the reductive catalytic deconstruction of hardwood lignin into monomeric phenols with a high yield up to 42.8 wt%. The synergistic effects of the fabricated catalyst and hydrogen facilitate the efficient C–O bond scission of the methoxylated β -O-4′ intermediates.



