Supporting Information

Structure sensitivity of Cu supported on manganese oxide catalysts in Levulinic acid hydrogenation

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Figure S1. TEM analysis for 10 wt.% Cu/OMS-2 Pre-Dep (a)-(b), and 10 wt.% Cu/OMS-2 Wet-Imp (c)-(d). (a) HAADF-STEM representative overview, and (b) average particle size distribution of CuO nanoparticles, (c) HAADF-STEM image, and (d) average particle size distribution of CuO nanoparticles. 20 wt.% Cu/OMS-2 Pre-Dep (e)-(f), and 20 wt.% Cu/OMS-2 Wet-Imp (g)-(h). (e) HAADF-STEM representative overview, and (f) average particle size distribution of CuO nanoparticles, (g) HAADF-STEM image, and (h) average particle size distribution of CuO nanoparticles, (g) HAADF-STEM image, and (h) average particle size distribution of CuO nanoparticles.

1. TEM images

Methodology: The average particle size measurements and corresponding particle size distributions were performed using ImageJ. In each image, 90-100 measurements were done for computing the particle size distribution histograms, by fitting the particle size distribution histogram to the log-normal distribution function in OriginPro 2018.

2. N₂ adsorption-desorption isotherms



Figure S2. N₂ adsorption–desorption isotherms and pore volume profiles of 5 wt.% Cu/OMS-2, (a) Wet-Imp; (b) Pre-Dep.



Figure S3. N₂ adsorption–desorption isotherms and pore volume profiles of 10 wt.% Cu/OMS-2, (a) Wet-Imp; (b) Pre-Dep.

10 wt.% Cu/OMS-2





Figure S4. N₂ adsorption-desorption isotherms and pore volume profiles of 20 wt.% Cu/OMS-2, (a) Wet-Imp; (b) Pre-Dep.