Electronic Supplementary Information

Selective, bifunctional Cu-WO$_x$/Al$_2$O$_3$ catalyst for hydrodeoxygenation of fatty acids

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Fig. S1   Particle size histograms of reduced 10Cu/Al$_2$O$_3$ and 10Cu-4WO$_x$/Al$_2$O$_3$ catalysts.

Fig. S2   Representative nitrogen adsorption-desorption isotherms and pore size distribution curves.

Table S1   Textural properties of reduced xCu/Al$_2$O$_3$ and 10Cu-yWO$_x$/Al$_2$O$_3$ catalysts determined from N$_2$ physisorption studies.
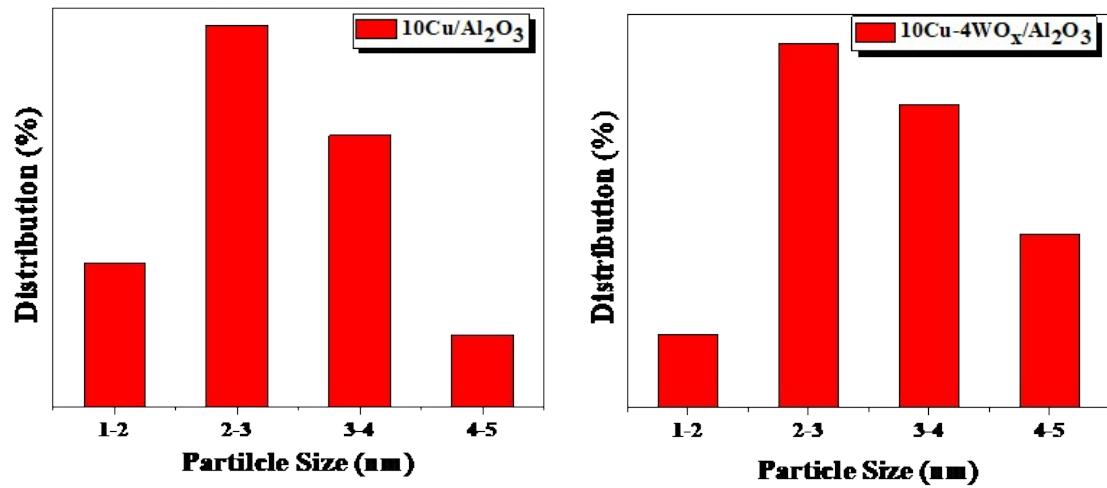
**Fig. S1** Particle size histograms of reduced $10Cu/Al_2O_3$ and $10Cu-4WO_x/Al_2O_3$ catalysts.
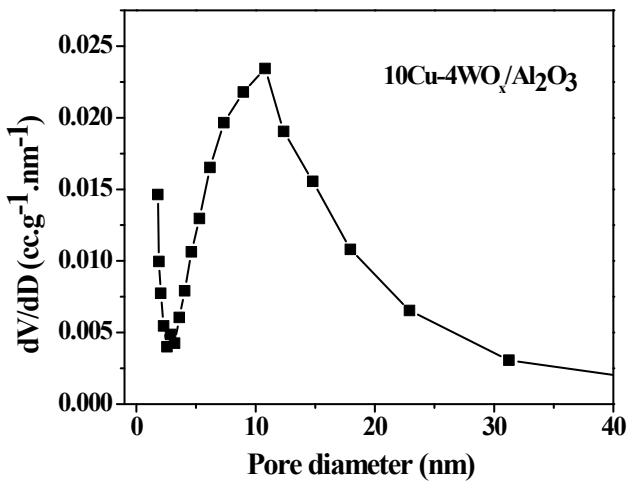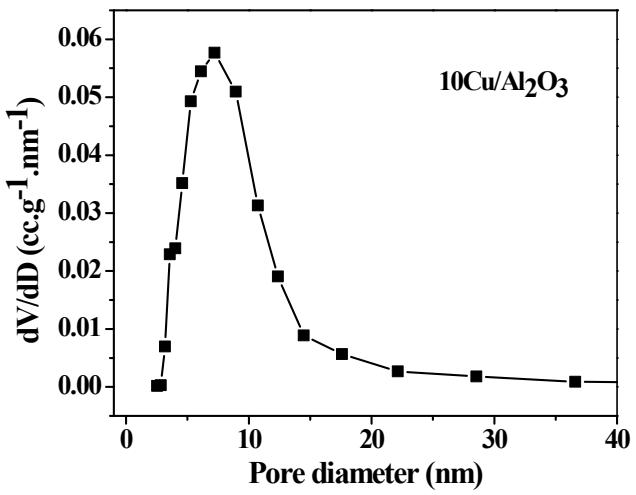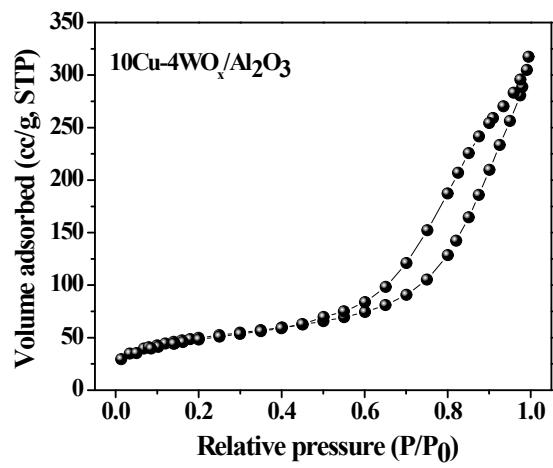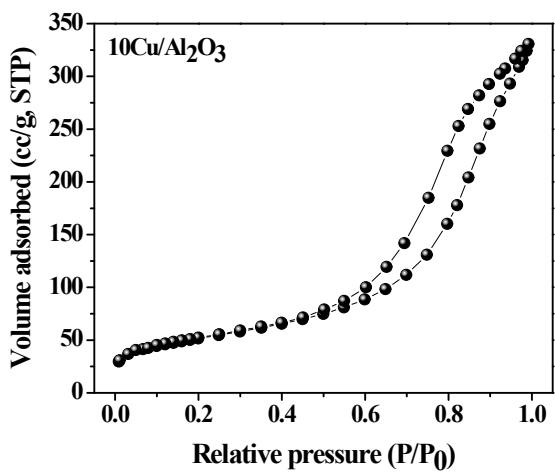
Fig. S2 Representative nitrogen adsorption-desorption isotherms and pore size distribution curves.

Table S1 Textural properties of reduced xCu/Al_2O_3 and $10Cu-yWO_x/Al_2O_3$ catalysts determined from N_2 physisorption studies.

Catalyst	S_{BET} (m²/g)[a]	Total pore volume (PV, cc/g)[b]	Average pore diameter (PD, nm)[c]	Surface density of tungsten (ρ_W; atoms/nm²)
$5Cu/Al_2O_3$	244	0.56	10.2	-
$10Cu/Al_2O_3$	183	0.48	10.2	-
$15Cu/Al_2O_3$	171	0.42	10.1	-
$20Cu/Al_2O_3$	134	0.34	10.9	-
$10Cu-4WO_x/Al_2O_3$	179	0.43	12.7	0.73
$10Cu-8WO_x/Al_2O_3$	168	0.36	10.7	1.56
$10Cu-12WO_x/Al_2O_3$	165	0.41	10.3	2.38
$10Cu-16WO_x/Al_2O_3$	159	0.46	11.5	3.32

[a]Specific surface area (S_{BET}) was calculated by the Brunauer-Emmett-Teller (BET) method using P/P_0 range between 0.01 and 0.2.

[b]Total pore volume (PV) was calculated from the adsorption isotherm at the relative pressure (P/P_0) of 0.97.

[c]Average pore diameter (PD) was measured adopting BJH and adsorption isotherm.