Electronic Supplementary Material (ESI) for Sustainable Energy & Fuels. This journal is © The Royal Society of Chemistry 2021

## **The Supporting Information**

for

Selective Conversion of Hydroxymethylfurfural to
Diformylfuran using Copper Hydroxide Nitrate
with Various Nano-Structures: A Comparative
Study

Table S1. Concentrations of Cu and nitrate ( $NO_3^-$ ) in the solvent after HMF oxidation (catalyst = TEMPO = 0.5 g/L, solvent = DMSO, T = 100 °C, t = 60 min)

Catalysts	Cu (mg/L)	nitrate (NO <sub>3</sub> <sup>-</sup> ) (mg/L)
CHN-bar	0.23	0.2
CHN-strip	0.31	0.5
CHN-flower	0.26	0.3

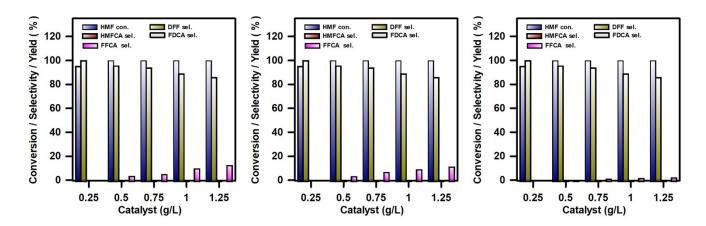


Fig. S1. Effect of catalyst dosage on selectivity of HMF oxidative: (a) CHN-bar, (b) CHN-strip, and (c) CHN-flower (T = 100 °C, t = 60 min)

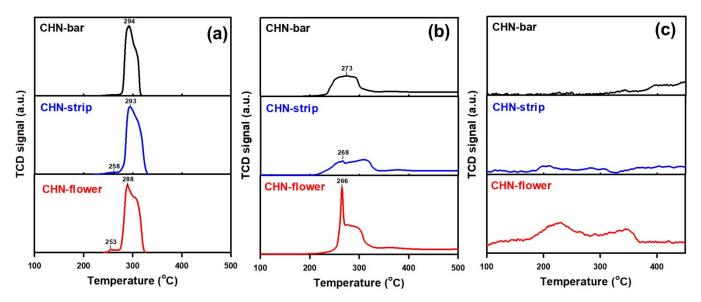


Fig. S2. (a) TPR profiles, (b) NH<sub>3</sub>-TPD, and (c) O<sub>2</sub>-TPD profiles of CHNs.