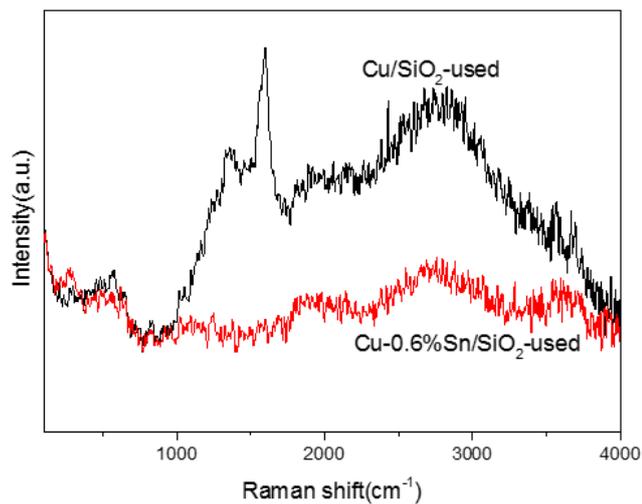


# Supplementary Materials: Promotive Effect of $\text{Sn}^{2+}$ on $\text{Cu}^0/\text{Cu}^+$ Ratio and Stability Evolution of $\text{Cu}/\text{SiO}_2$ Catalyst in the Hydrogenation of Dimethyl Oxalate

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**Figure S1.** The Raman spectrum of the  $\text{Cu}/\text{SiO}_2$ -used catalyst and  $\text{Cu-0.6\%Sn}/\text{SiO}_2$ -used catalysts.