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Supporting Information

Supporting Information for: Hydrogenolysis of methyl glycolate to ethanol over Pt-Cu/SiO₂ single-atom alloy catalyst: a further step from cellulose to ethanol

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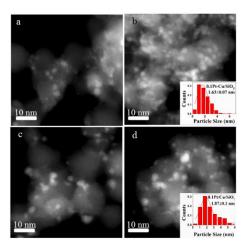


Figure S1. HAADF-STEM images of $0.1Pt-Cu/SiO_2$ before (a,b) and after (c,d) the reaction.

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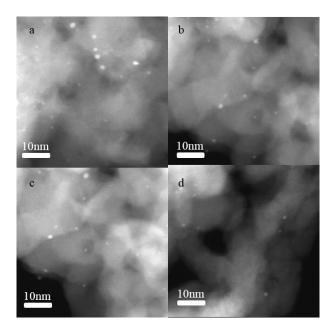


Figure S2. HAADF-STEM images of 0.1Pt /SiO₂ after reduction.

$$\begin{array}{c} OHO \\ H_2C-C-OCH_3 \end{array} \xrightarrow{Cat.} \begin{array}{c} H_2 \\ H_2C-C \end{array} \xrightarrow{OHO} \\ H_2C-C-C-OCH_3 \end{array} \xrightarrow{Cat.} \begin{array}{c} H_2 \\ H_2C-C \end{array} \xrightarrow{OHO} \\ H_3C-C \end{array} \xrightarrow{OHO} \begin{array}{c} H_2 \\ H_3C-C \end{array} \xrightarrow{OHO} \\ H_3C-C \end{array} \xrightarrow{OHO} \begin{array}{c} OHO \\ H_2C-C-OCH_3 \end{array} \xrightarrow{Cat.} \begin{array}{c} H_2 \\ H_3C-C \end{array} \xrightarrow{OHO} \begin{array}{c} OHO \\ H_3C-CH_2 \end{array} \xrightarrow{OHO} \begin{array}{c} OHO \\ H_2O \end{array} \xrightarrow{OHO} \begin{array}{c} OHO \\ OHO \\ OHO \end{array} \xrightarrow{OHO} \begin{array}{c} OHO \\$$

Scheme S1. The proposed reaction pathway for MG hydrogenation.