

**Insights into the influence of in situ generated H₂ and H₂O on the stability of highly dispersed CuO-
ZnO/SiO₂ Catalyst**

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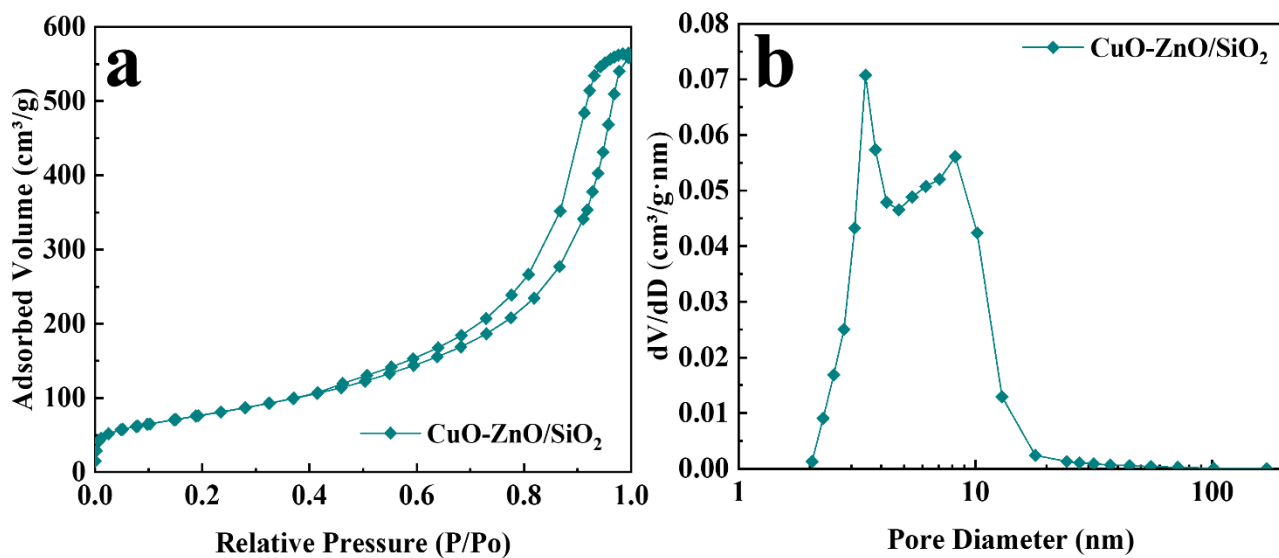


Figure S1. (a) The N₂ adsorption-desorption isotherm for CuO-ZnO/SiO₂. (b) The pore size distribution curve for CuO-ZnO/SiO₂.

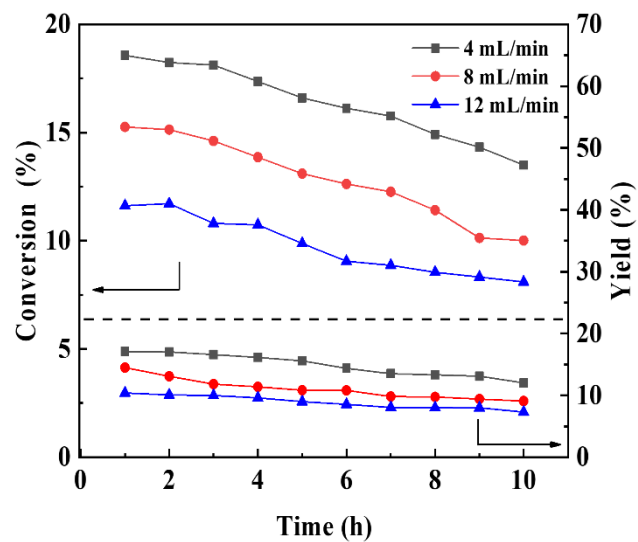


Figure S2. The catalytic performance of CuO-ZnO/SiO₂ at WHSV (C₃H₉ON) = 75 h⁻¹ and T = 250 °C.

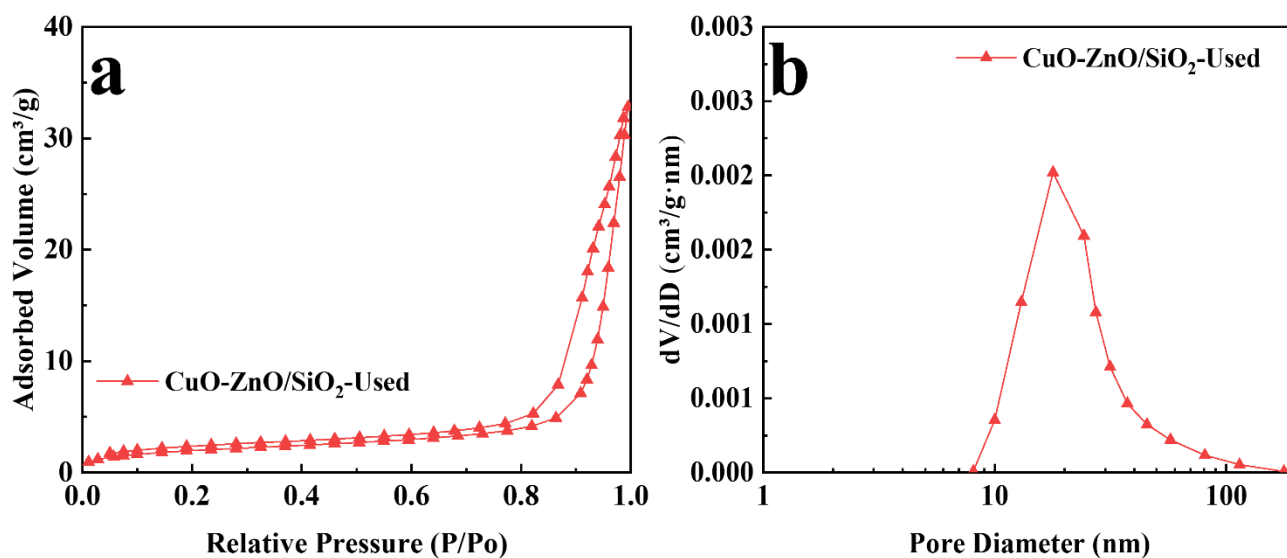


Figure S3. (a) The N₂ adsorption-desorption isotherm for CuO-ZnO/SiO₂-Used. (b) The pore size distribution curve for CuO-ZnO/SiO₂-Used.

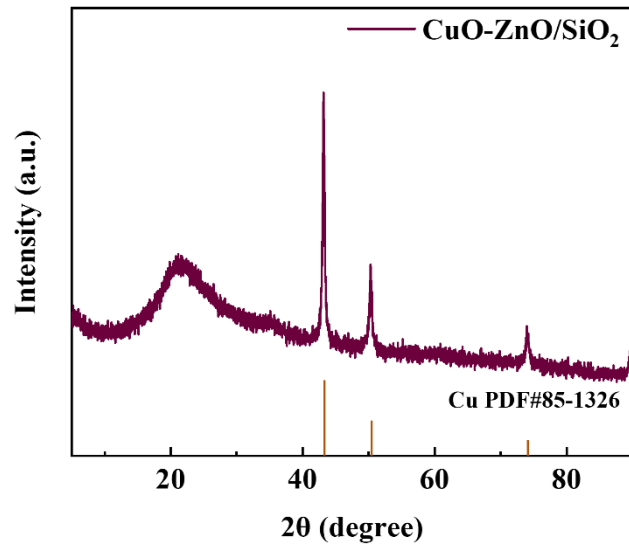


Figure S4. The XRD patterns of CuO-ZnO/SiO₂.

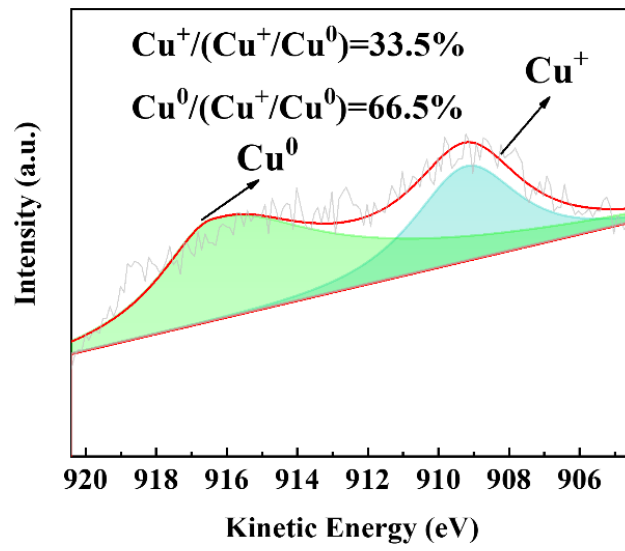


Figure S5. Cu LMM of XPS for CuO-ZnO/SiO₂-Regenerated.

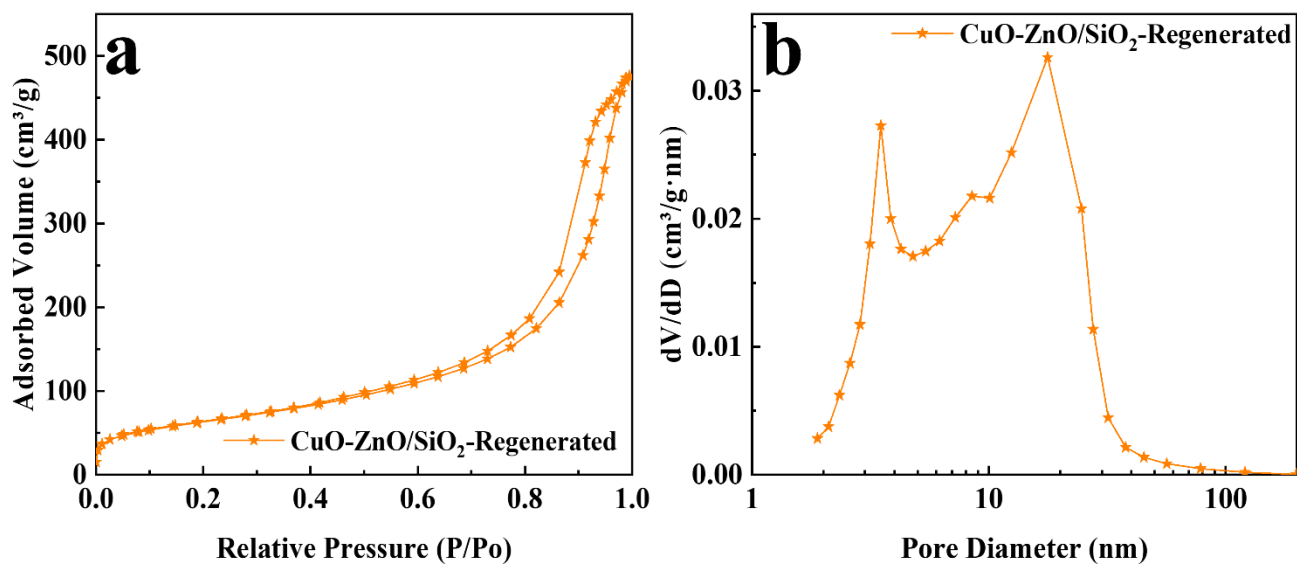


Figure S6. (a) The N₂ adsorption-desorption isotherm for CuO-ZnO/SiO₂-Regenerated. (b) The pore size distribution curve for CuO-ZnO/SiO₂-Regenerated.