Supporting Information

One-pot Synthesis of Monolithic Cu_2O/Cu Catalyst for Efficient Ozone Decomposition

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Table S1. The NH_4OH:HCl ratio optimization by the ozone decomposition activity

<table>
<tr><td></td><td>0 µL
NH_4OH</td><td>1*27 µL
NH_4OH</td><td>2*27 µL NH_4OH</td><td>3*27 µL
NH_4OH</td><td>4*27 µL
NH_4OH</td></tr>
<tr><td>0 mL HCl</td><td>-</td><td colspan="4">The Cu foam would dissolve gradually</td></tr>
<tr><td>0.2 mL HCl</td><td rowspan="4">Cu foam would keep unchanged and no performance was detected</td><td>No performance</td><td>No performance</td><td colspan="2" rowspan="3">The sample was partially dissolved</td></tr>
<tr><td>0.32 mL HCl</td><td>No performance</td><td>No performance</td></tr>
<tr><td>0.4 mL HCl</td><td>~ 85% at 12 h aging time</td><td>No performance</td></tr>
<tr><td>0.48 mL HCl</td><td>~ 42% at 8 h aging time</td><td>No performance</td><td colspan="2"></td></tr>
<tr><td>0.6 mL HCl</td><td colspan="3">Cu foam would keep unchanged and no performance was detected</td><td>-</td></tr>
</table>

The concentration of NH_4OH and HCl are 13.38 and 1M, respectively.

All experiments have been done at reaction time 8 and 12 h.

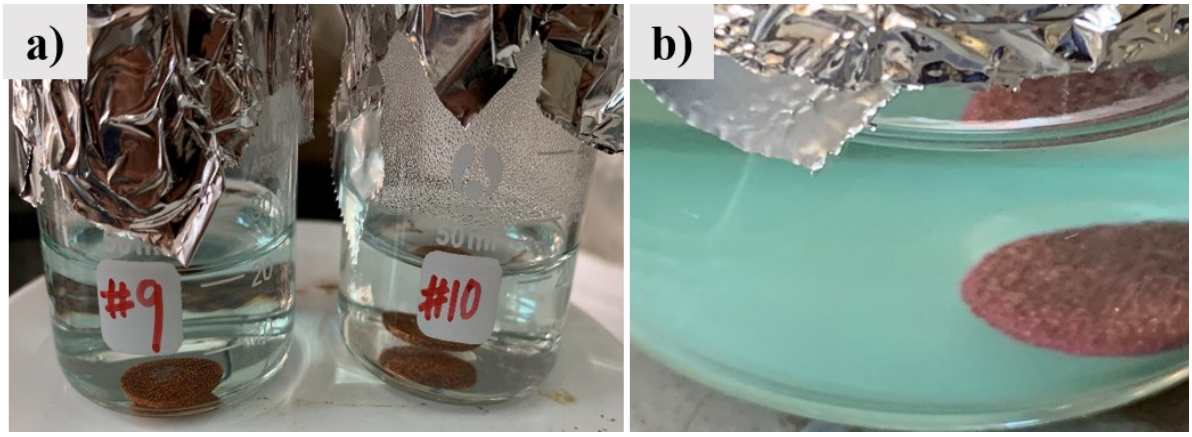

Figure S1. The color changed to blue (a) after 15 minutes, and precipitate (b) after 2 h.

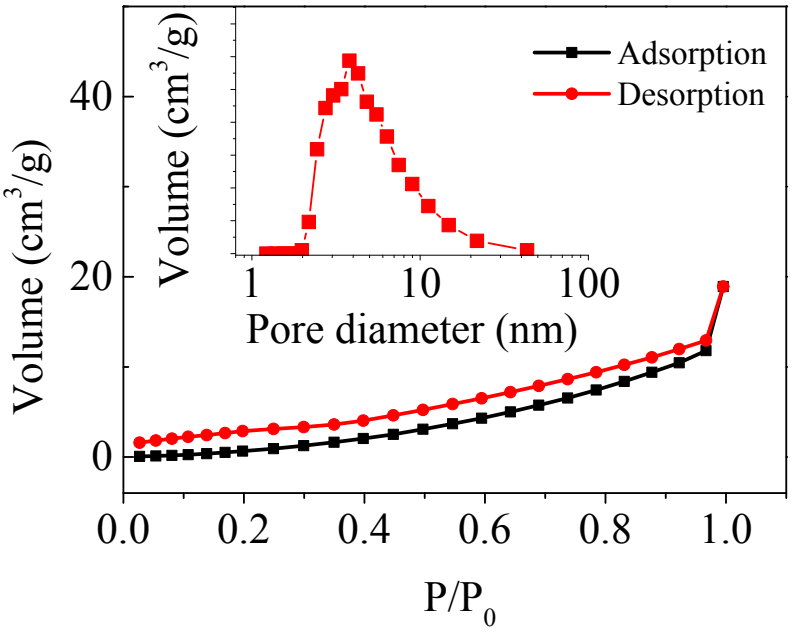

Figure S2. The N_2 adsorption/desorption isotherm of the Cu_2O/Cu catalyst.

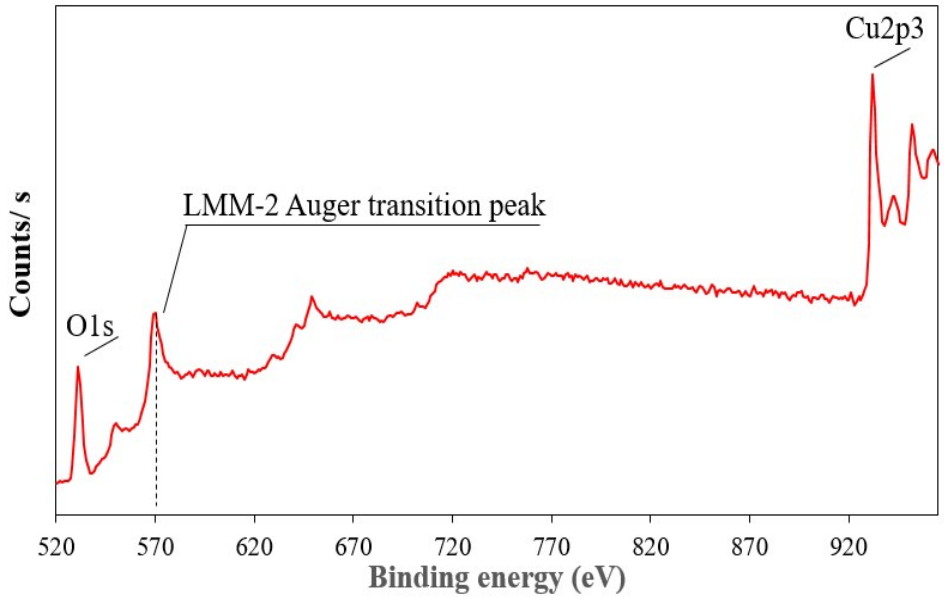

Figure S3. The LMM-2 Auger transition peak located at 570 eV