**Electronic Supplementary Material**

**Highly sensitive determination of ammonia nitrogen by nanocubic copper prepared by direct electrochemical deposition**

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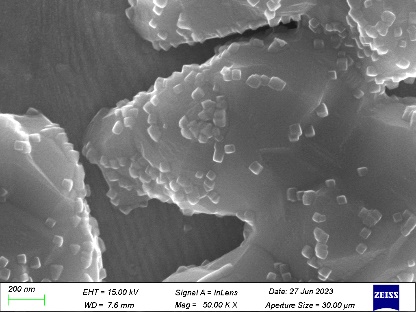
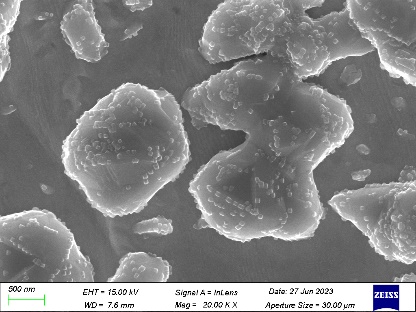
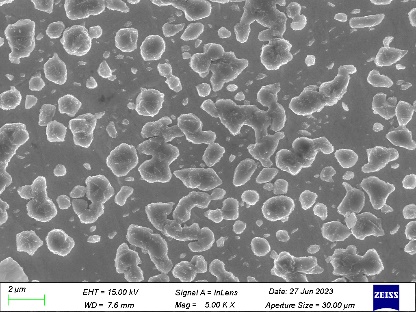
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**Figure S1**. Cyclic voltammogram of bare Pt electrode in 0.9 M H2SO4 solution containing 0.075 M CuSO4.



**200 nm**

**500 nm**

**2 μm**

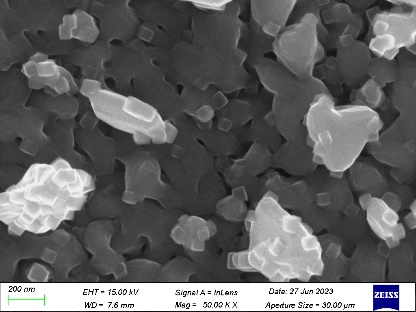
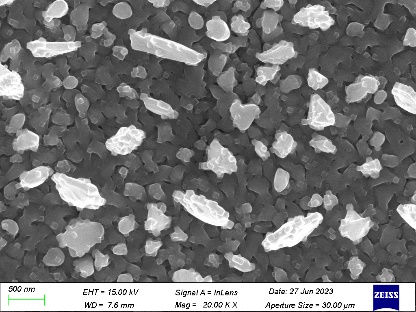
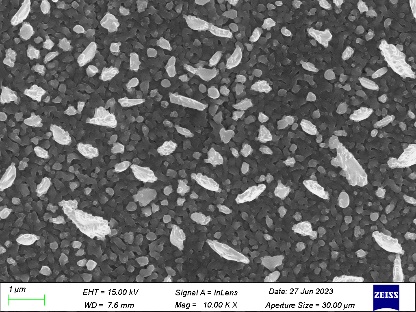
**(e))**

**(d))**

**(c)**

**(b))**

**(a)**



**1 μm**

**200 nm**

**500 nm**

**(f))**

**Figure S2.** SEM imagines of nano-Cu electrodes deposited at (a-c) -0.2 V and (e-f) -0.4 V for 60 s.



**Figure S3.** Linear scan voltammograms of nanocubic copper electrode with different sweep rates ranged from 5 mV/s to 200 mV/s in blank carbonate buffer solution (pH=10). The inset shows the liner fitting plot of the logarithm of the peak current (*i*p) at -0.03V versus the logarithm of the scan rate (*v*).