

Supporting Information

Supporting Figures

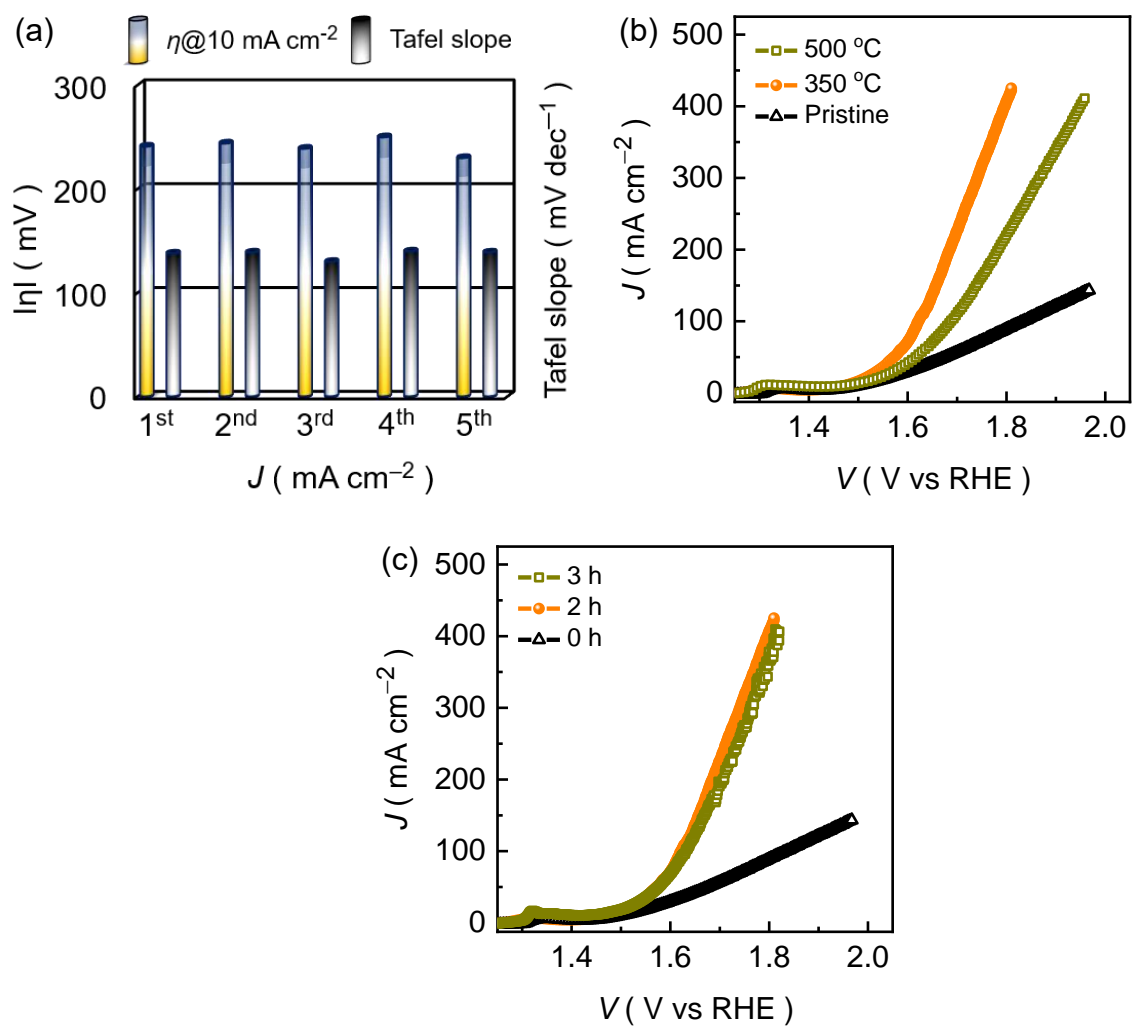


Figure S1. (a) Reliability of the OER activity for the N,CuO@CuS core-shell structure catalyst. (b) Temperature and (c) time dependent LSV curves.

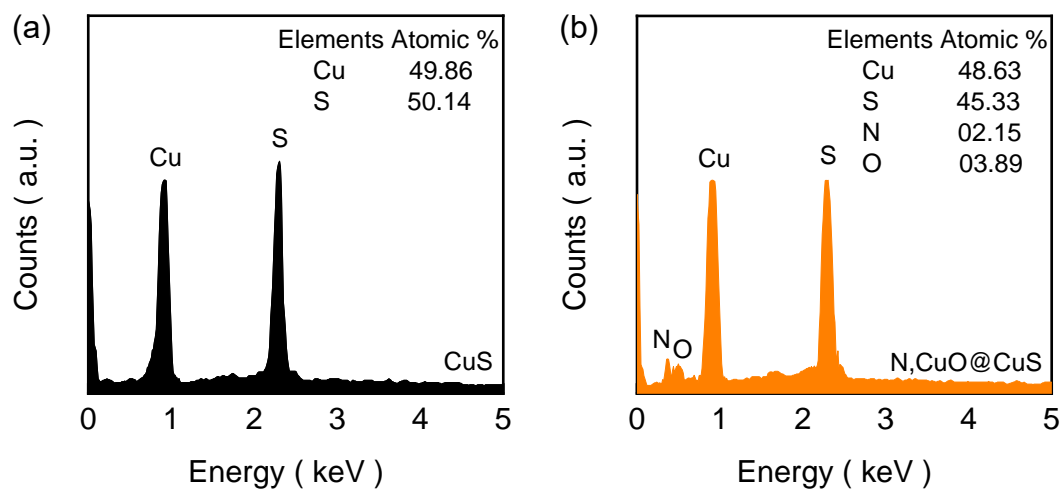


Figure S2. EDS spectra for the (a) CuS and (b) N,CuO@CuS electrode films.

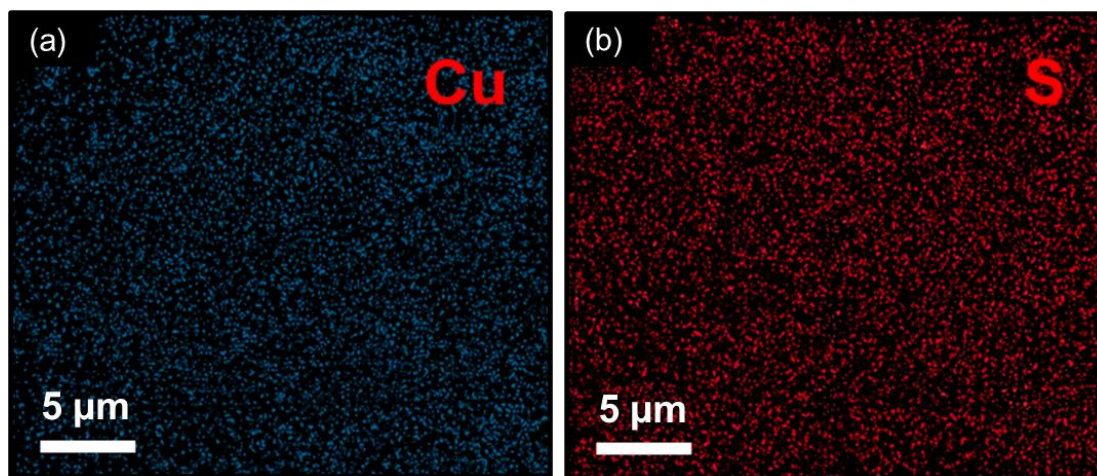


Figure S3. (a) Cu and (b) S constituents EDS image mapping for the pure CuS electrode film.

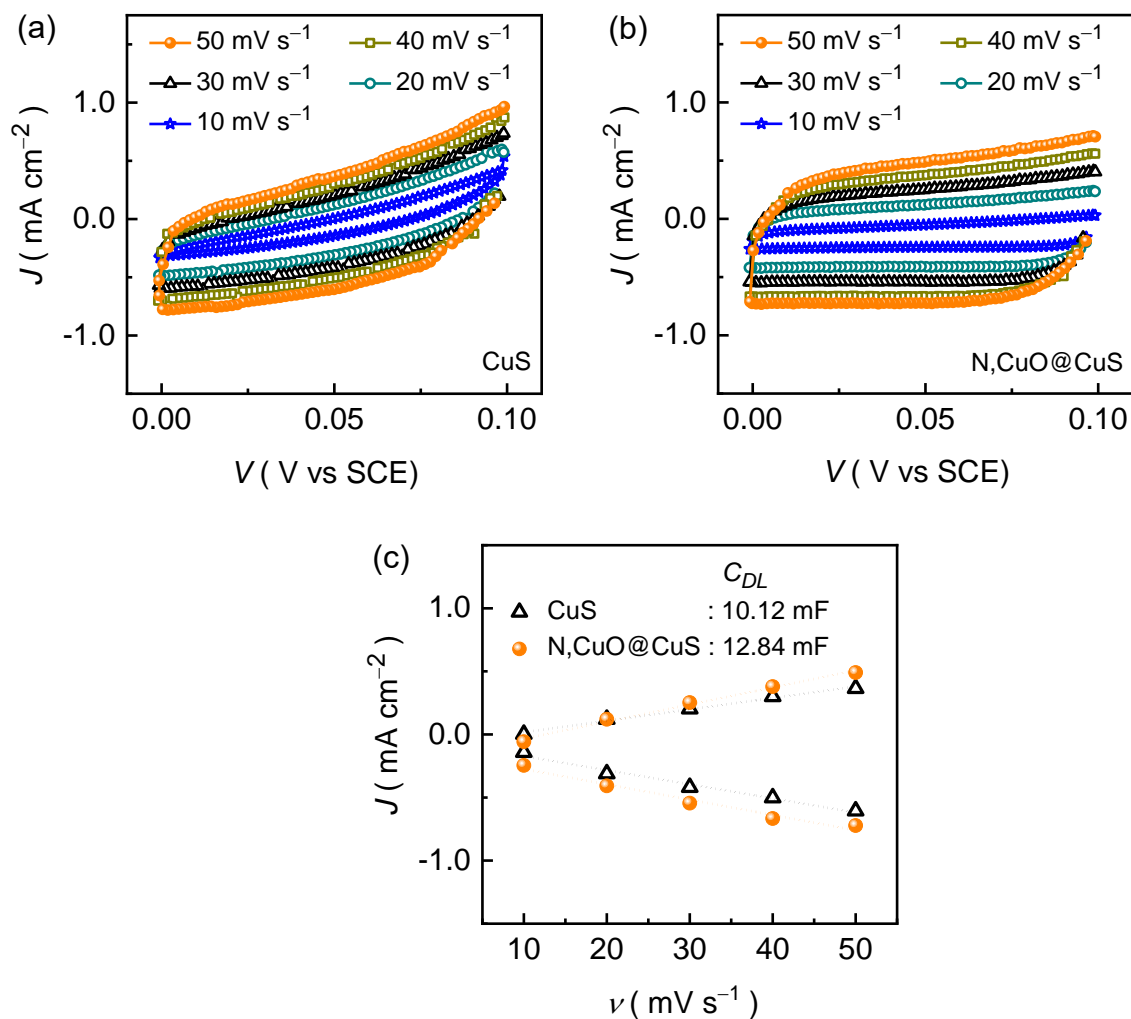


Figure S4. Non-Faradaic CV curves for (a) CuS and (b) N,CuO@CuS catalyst measured at various scan rates. (c) “ J_{DL} versus ν ” plots obtained at 0.05 V (vs. SCE) from non-Faradaic CV curves to estimate the double-layer capacitance and ECSA. Notably, the average magnitude value of C_{DL} (i.e., positive and negative slopes obtained from the anodic and cathodic CV sweeps plots, respectively.) was used to calculate ECSA

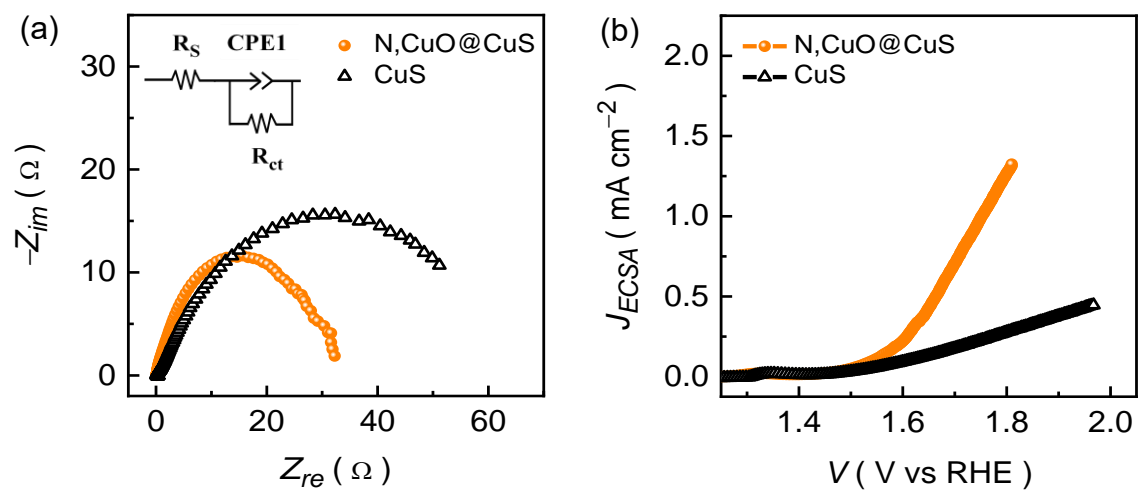


Figure S5. (a) Nyquist impedance spectra and (b) ECSA-corrected LSV curves of the CuS and N,CuO@CuS catalysts.

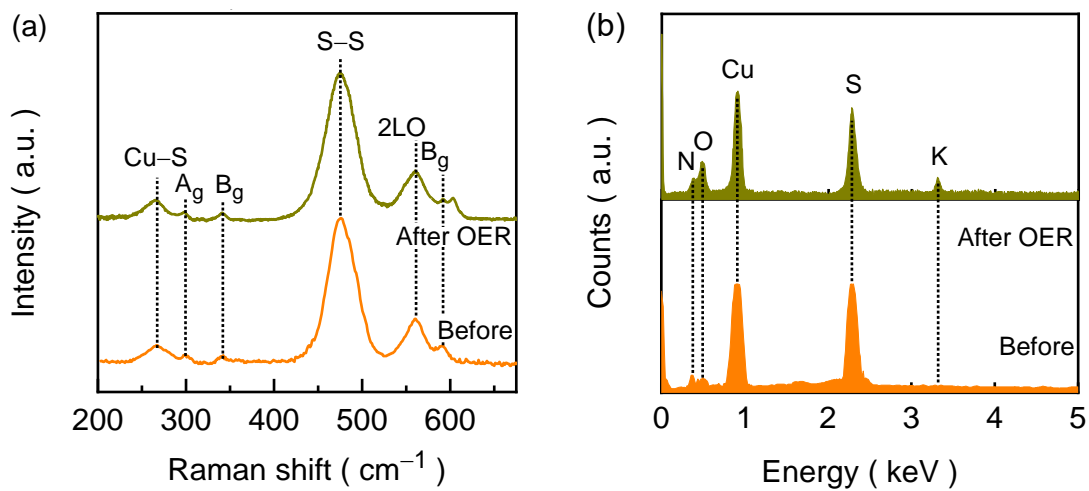


Figure S6. (a) Raman (b) EDS spectra for the CuS and N,CuO@CuS catalysts measured after the long-term chronopotentiometric test.