Electronic Supplementary information

Nanostructured copper molybdates as promising bifunctional electrocatalysts for overall water splitting and CO_2 reduction

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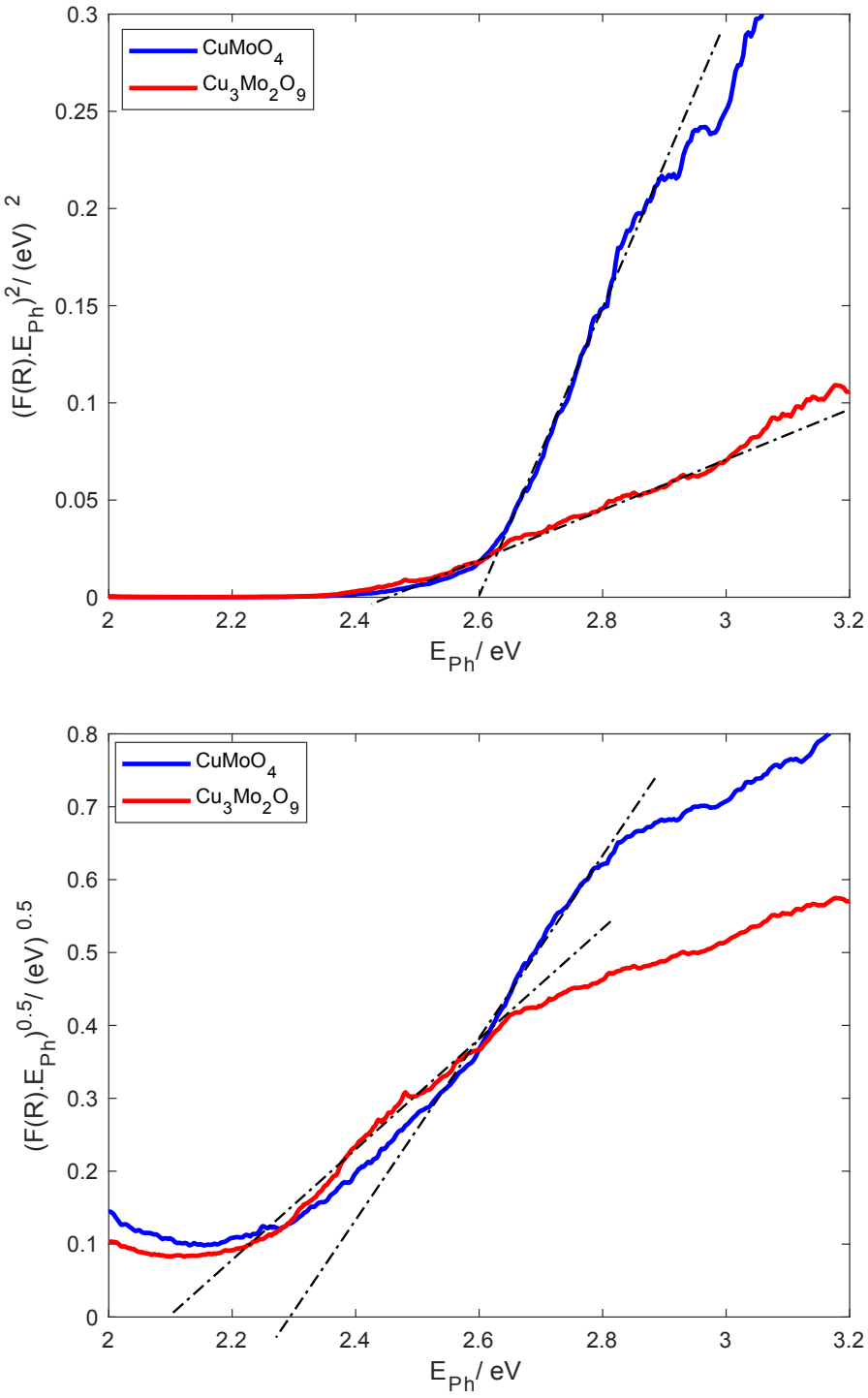


Fig. S1. Transformed DRS data for a) direct and b) indirect transitions.

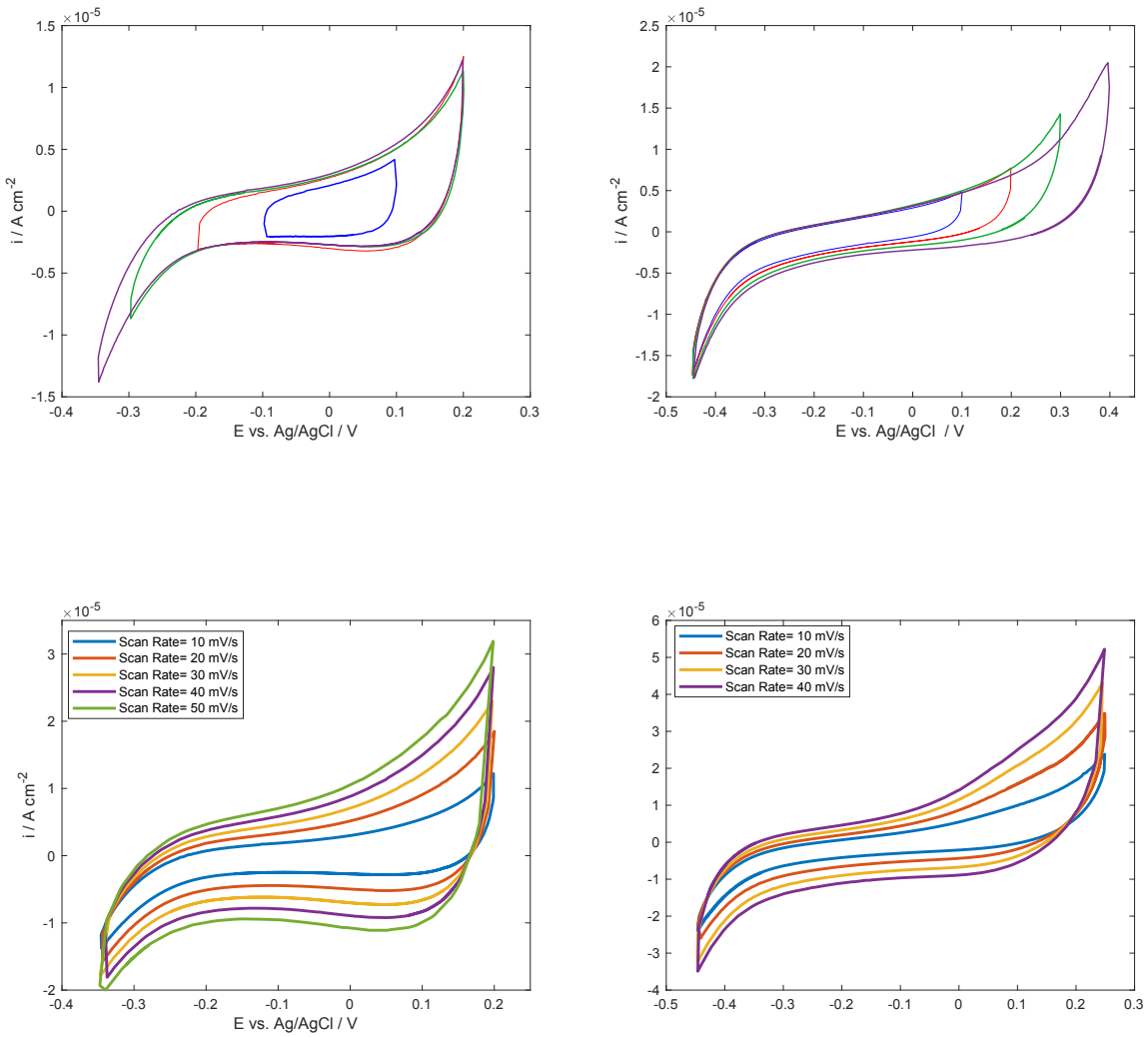


Fig. S2. Cyclic voltammograms of a, c) $CuMoO_4$ and b, d) $Cu_3Mo_2O_9$ at different end potentials and scan rates in 0.1 M NaOH.

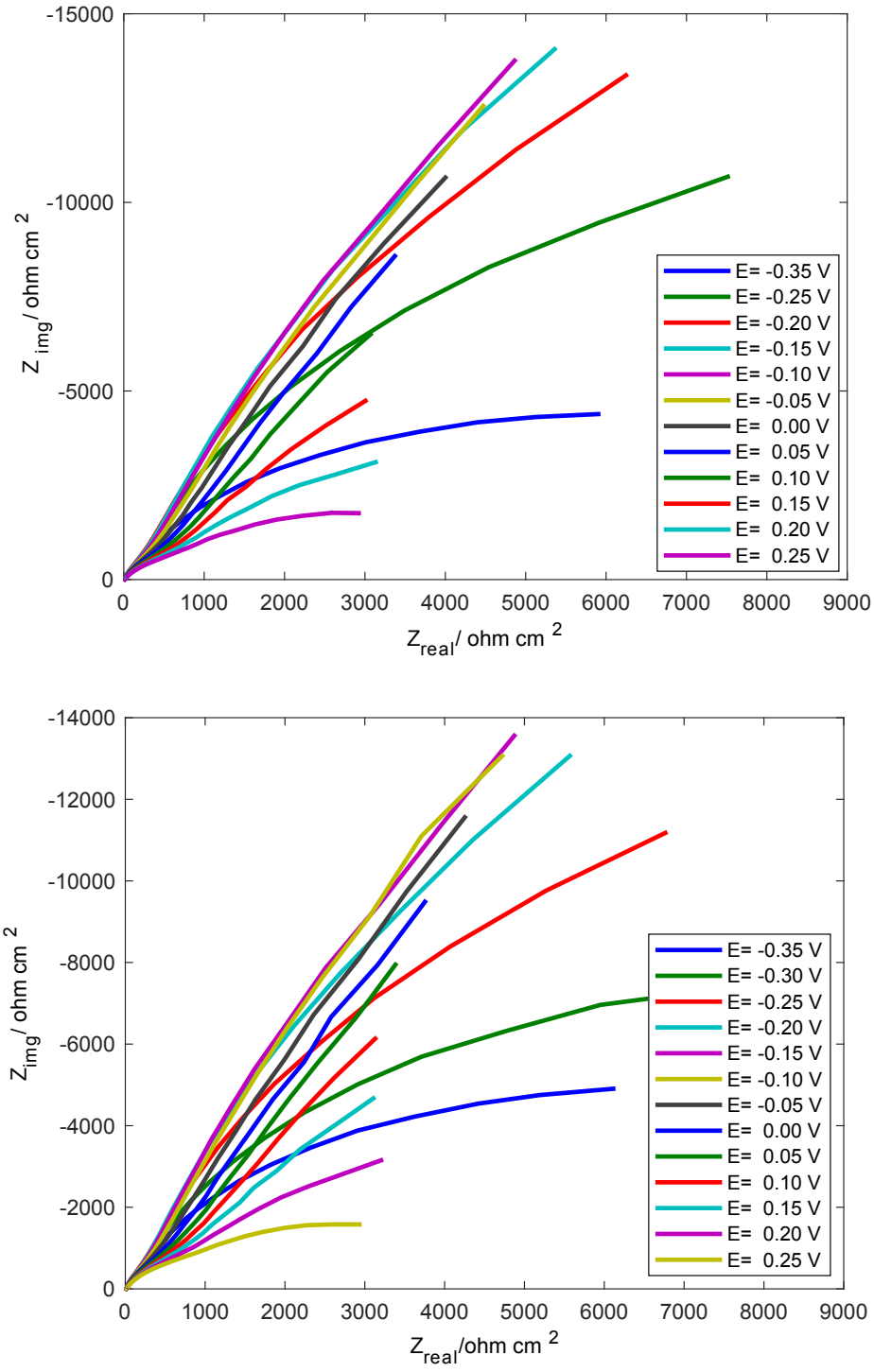


Fig. S3. Nyquist diagrams of nano-$CuMoO_4$ in 0.1 M NaOH for a) in the dark and b) under illumination.

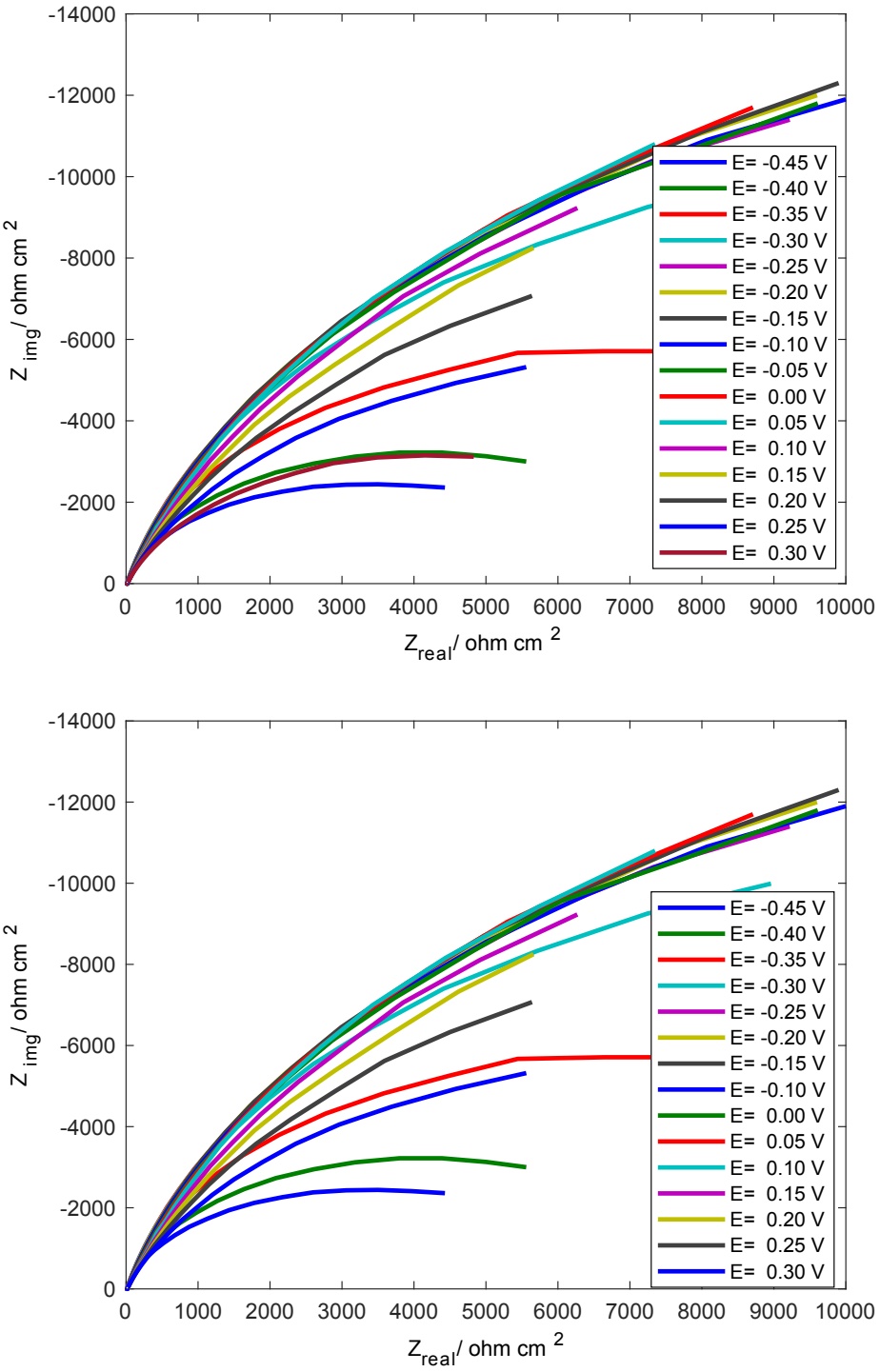
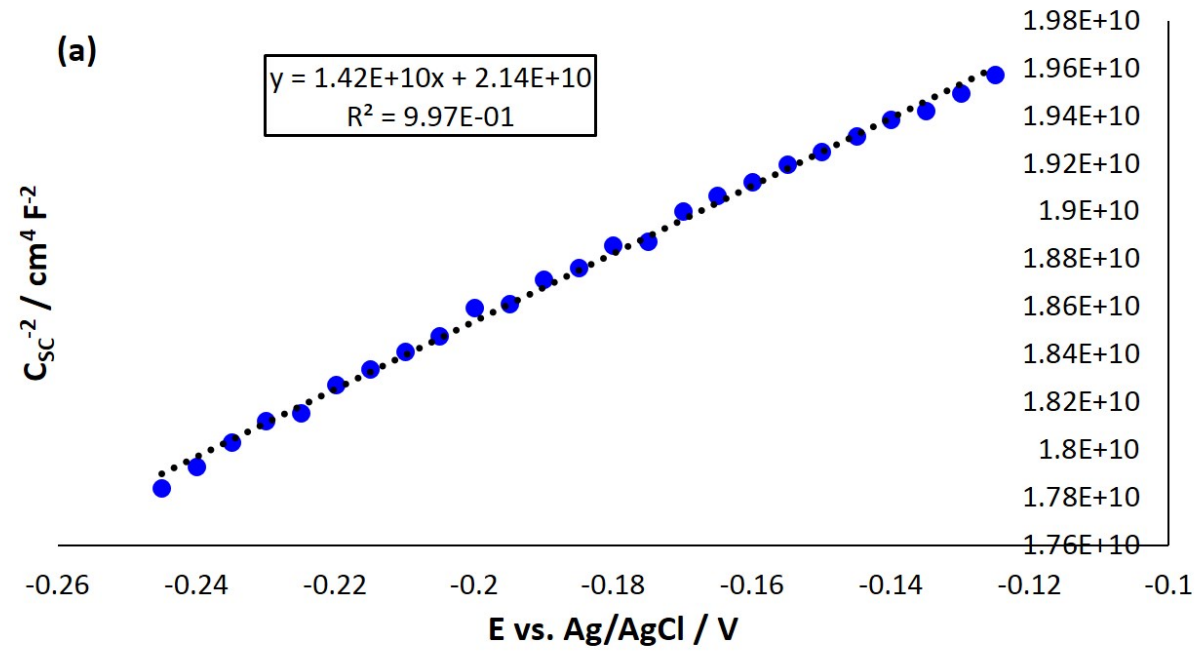


Fig. S4. Nyquist diagrams of nano-$Cu_3Mo_2O_9$ in 0.1 M NaOH for a) in the dark and b) under illumination.



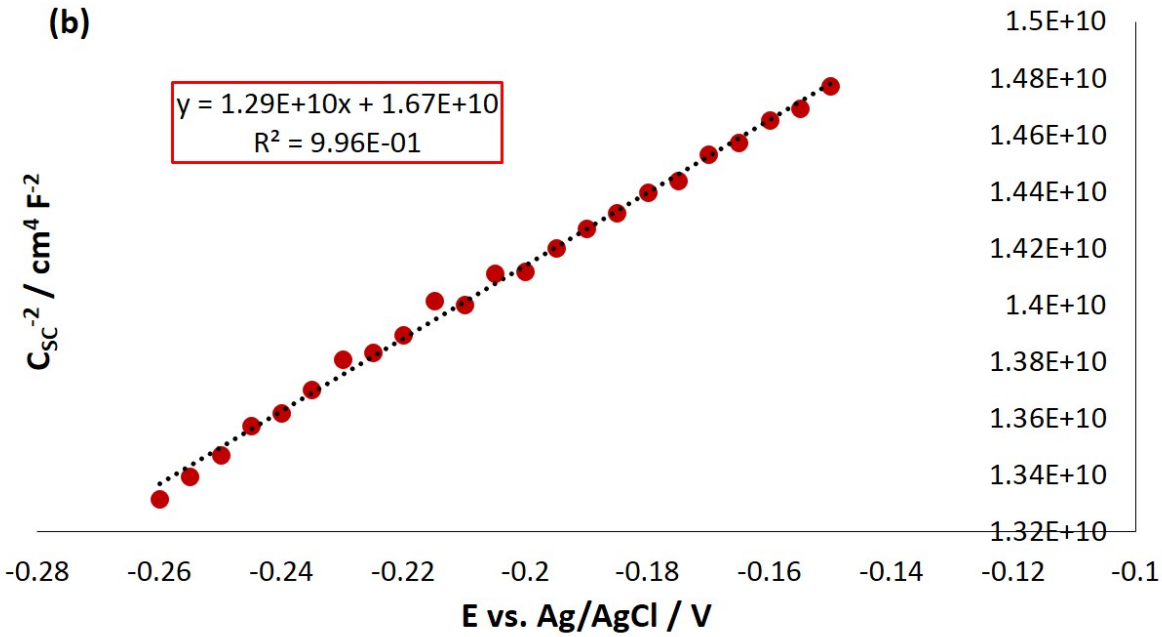


Fig. S5. Linear part of Mott-Schottky plot of nano-$CuMoO_4$ in 0.1 M NaOH for a) in the dark and b) under illumination.

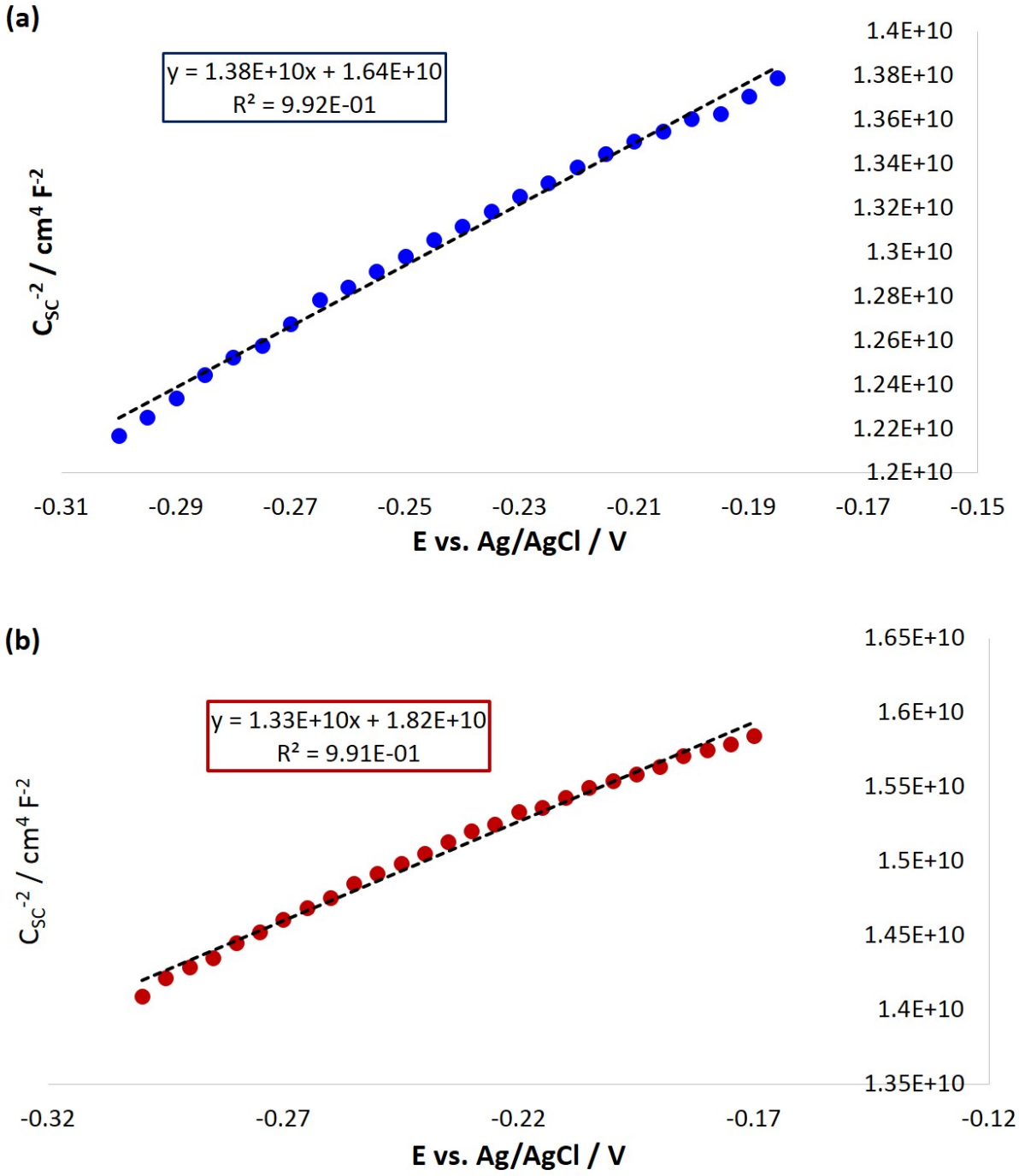


Fig. S6. Linear Mott-Schottky plot of nano-$Cu_3Mo_2O_9$ in 0.1 M NaOH for a) in the dark and b) under illumination.

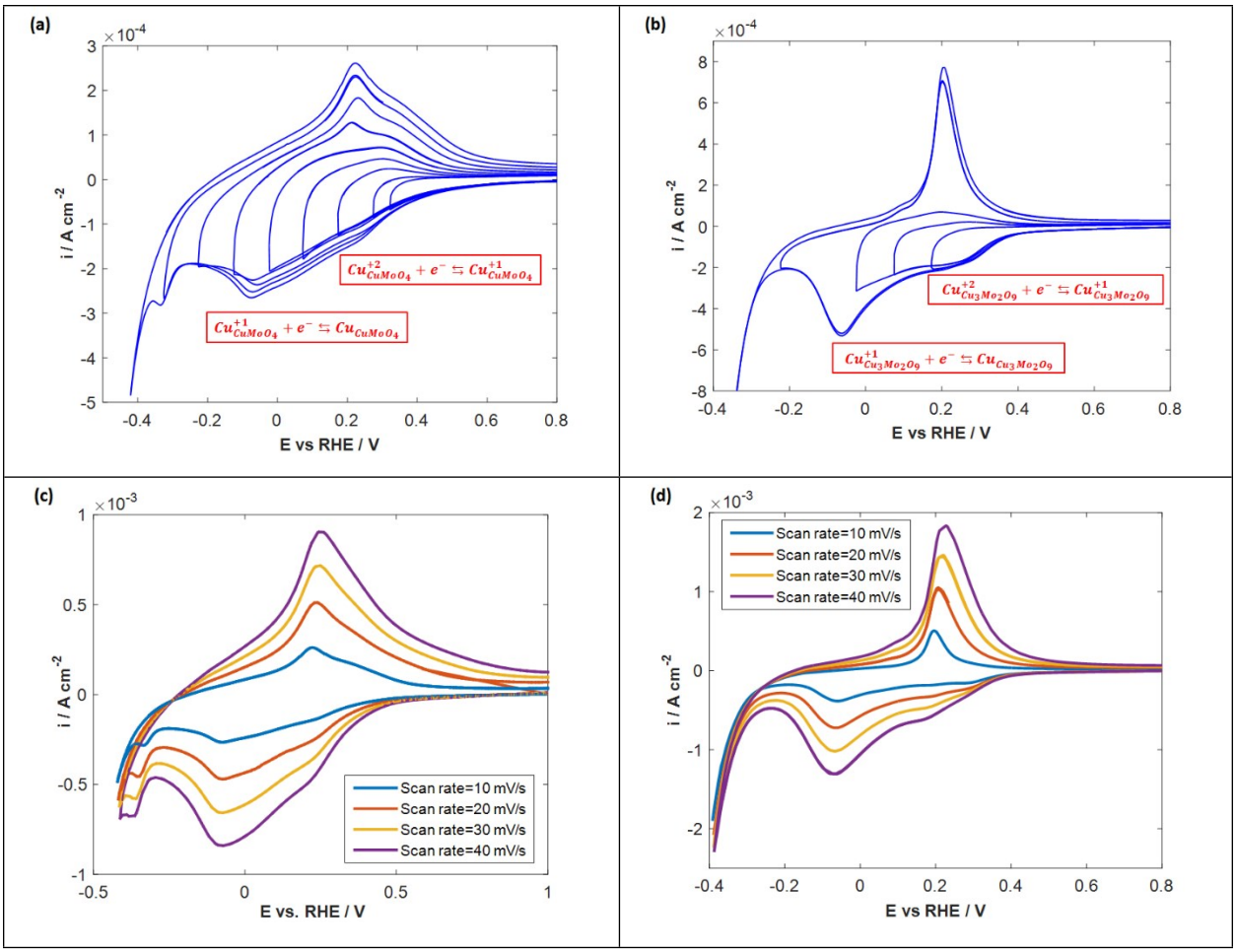


Fig. S7. Cyclic voltammograms with different end potentials for a) $CuMoO_4$ and b) $Cu_3Mo_2O_9$, at different scan rates for c) $CuMoO_4$ and d) $Cu_3Mo_2O_9$.

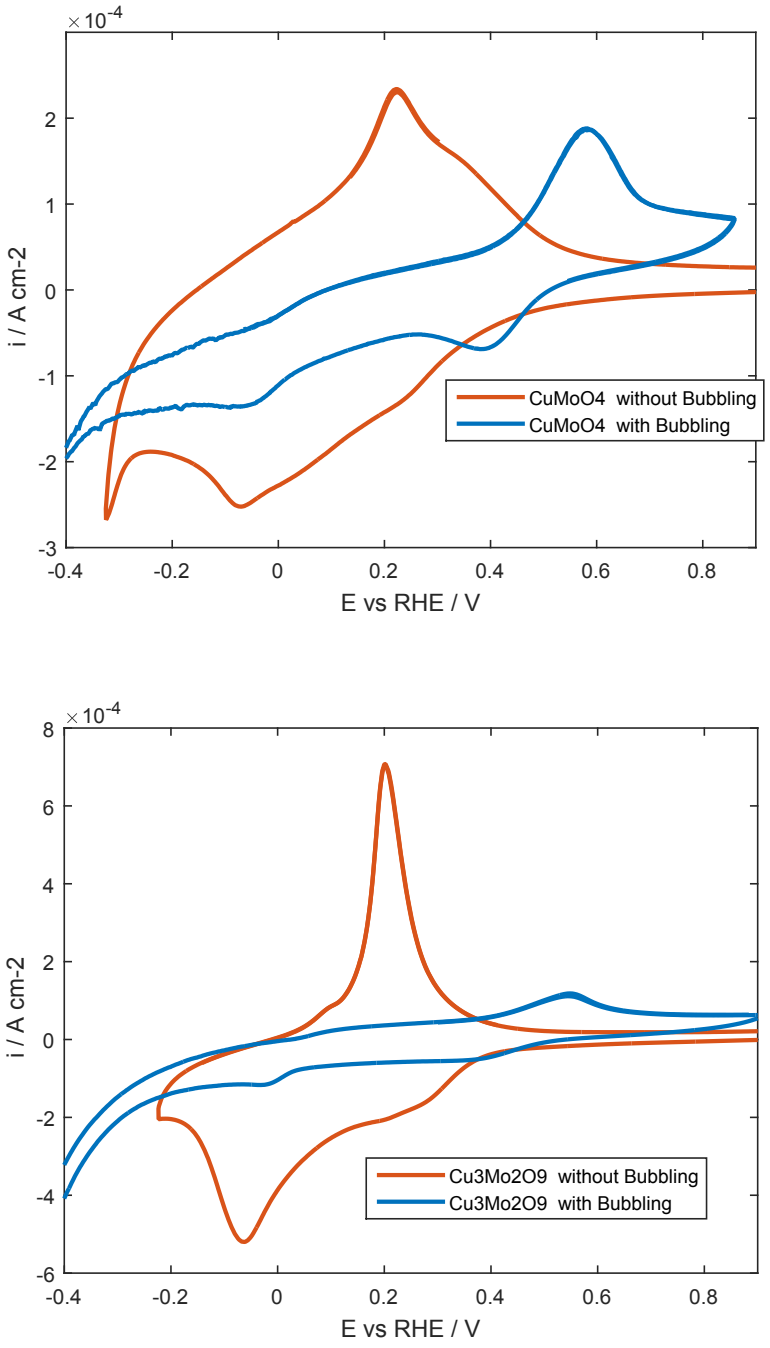


Fig. S8. Comparative CVs of a) $CuMoO_4$, and b) $Cu_3Mo_2O_9$ in the presence and absence of CO_2 dissolving species.