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Supporting Information

New materials for the light-induced hydrogen evolution reaction from the Cu-Si-Ti-O system

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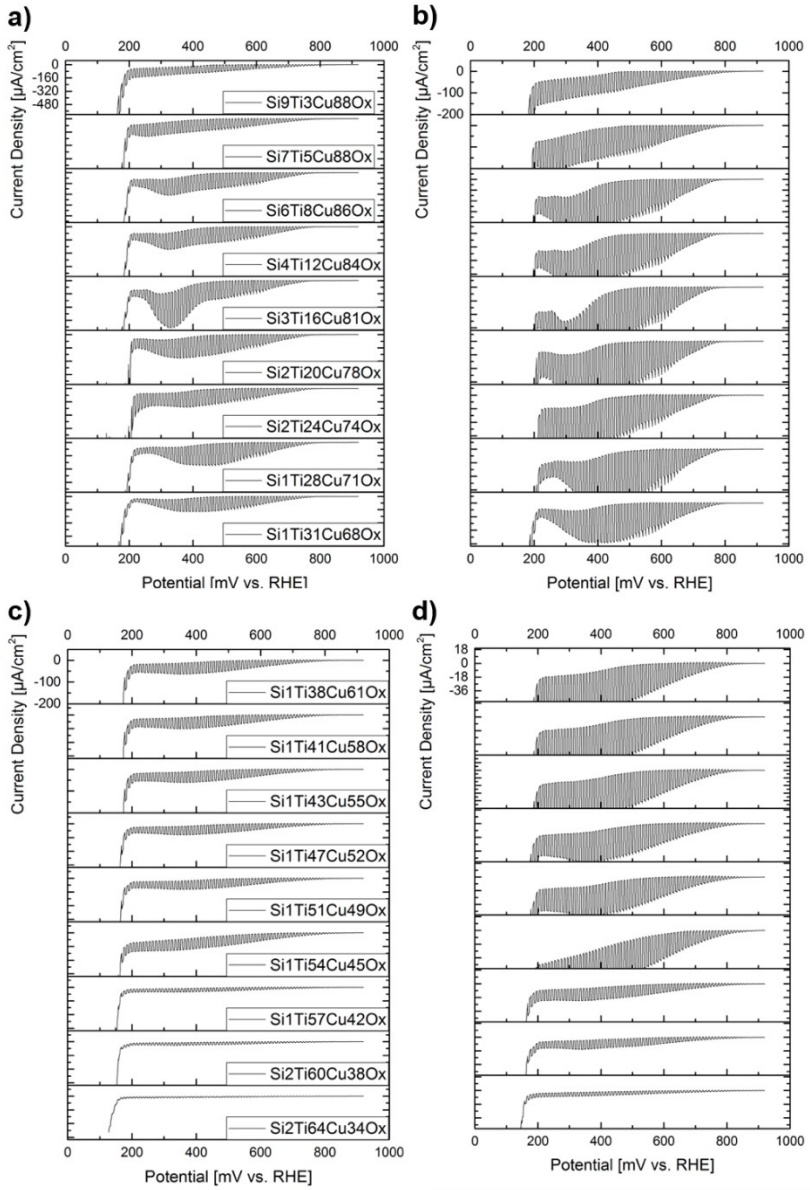

Figure S1 a, c: Linear sweep measurements under chopped light illumination from a quasi-binary cut of the Cu-Si-O system with low (< 3 at.%) Si-O contents. **b, d:** Current range adapted for a 'zoom-in' into the dark current values.

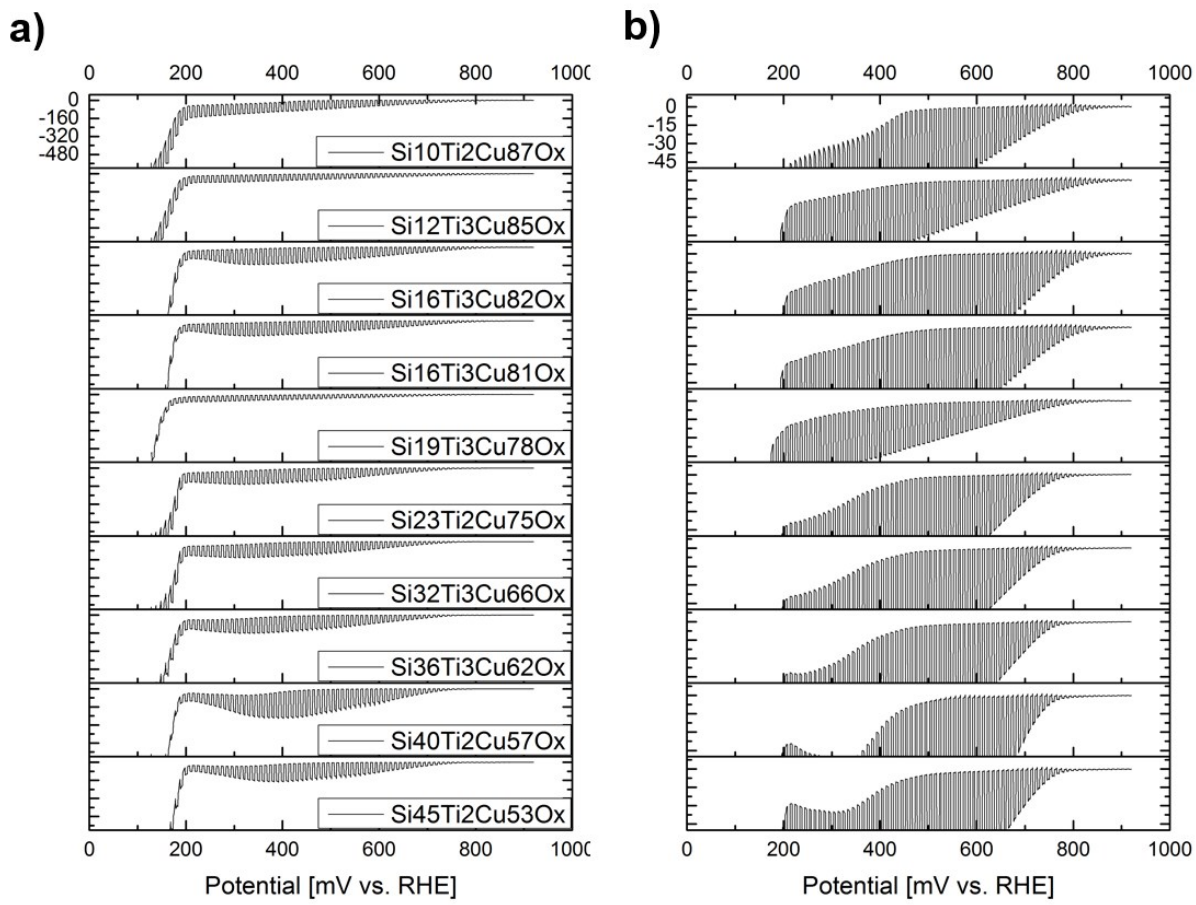

Figure S2 Linear sweep voltammetry under chopped light illumination at a scan rate of 1 mV s^{-1} from a Cu-Si-O quasi-binary cut with low Ti-O content (< 3 at.%). At potentials < 200 mV RHE hydrogen evolution occurs, while a Cu^{2+} reduction peak is observed at high Si content (< 36 at.%) and low Ti content. At 12 at.% Si, Ti 3 at.% and 85 at.% Cu no reduction peak of Cu^{2+} is seen and compared to the other compositions a lower decrease in the dark current was observed indicating decreased corrosion.