catalysts

Supplementary Information

Scalability and Investigation of the Geometrical Features and Shapes of a Tandem Photo-Electrolysis Cell Based on Non-Critical Raw Materials

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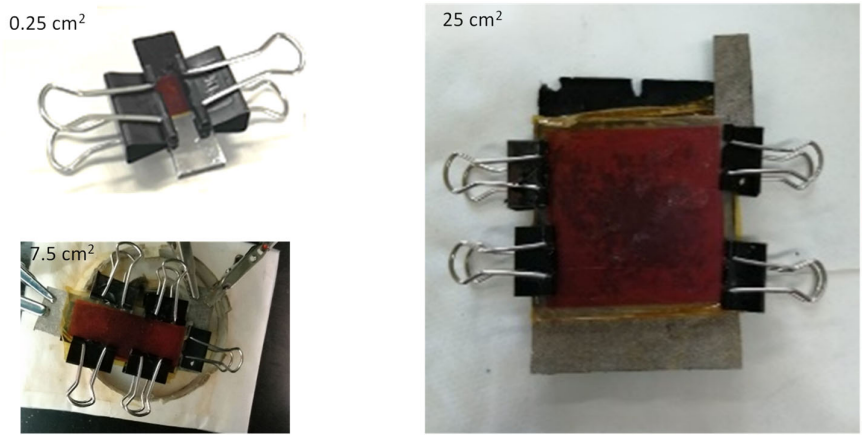

Figure S1. Pictures of three developed PEC: 0.25 cm², 7.5 cm² and 25 cm².

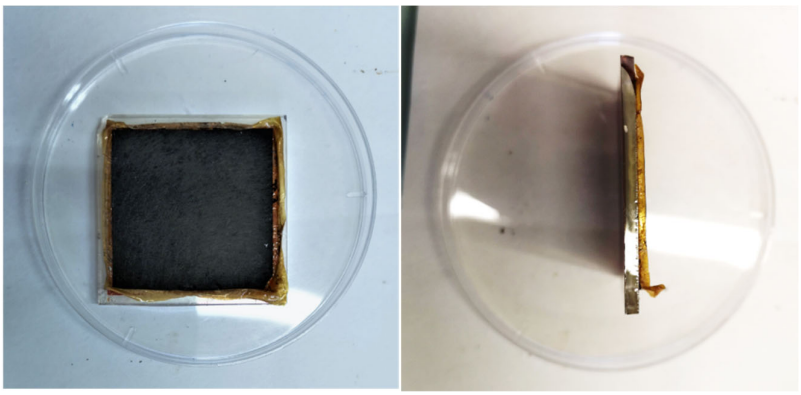

Figure S2. GEMA and its mechanism with drilled FTO.

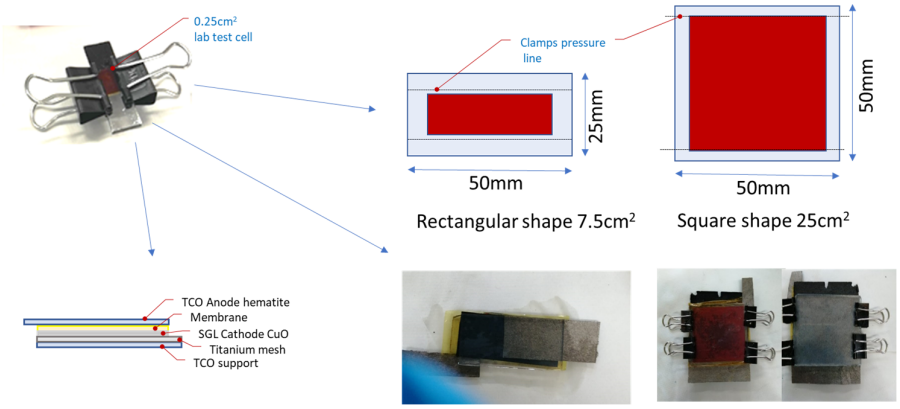

Figure S3. Sketch of the idea to increase the efficiency of tandem PEC.

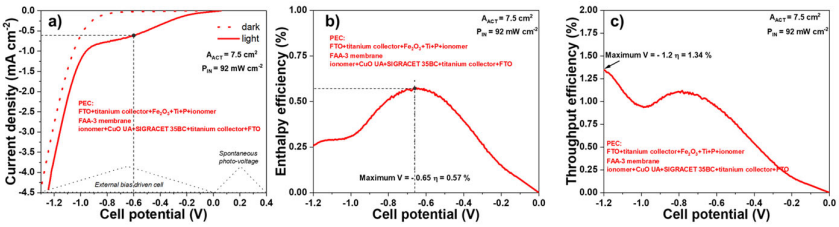

Figure S4. a) Current density under illumination and in the dark, b) enthalpy and c) throughput efficiency of 7.5 cm² rectangular cell.

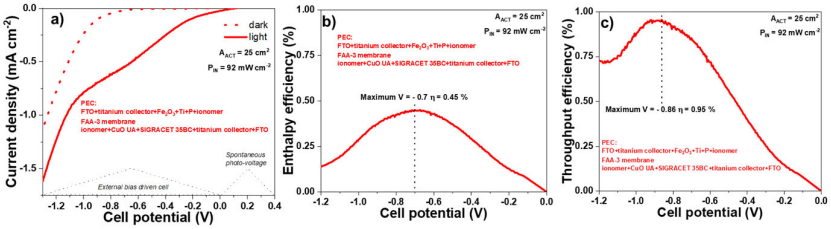

Figure S5. a) Current density under illumination and in the dark, b) enthalpy and c) throughput efficiency of 25 cm² square cell.

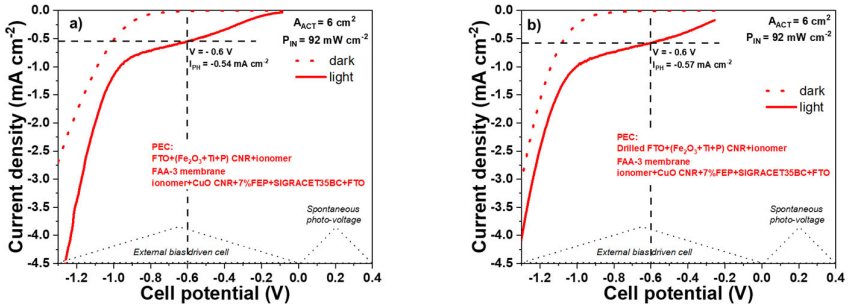

Figure S6. Current density under illumination and in the dark for the tandem PEC based on a) full FTO and b) drilled FTO.

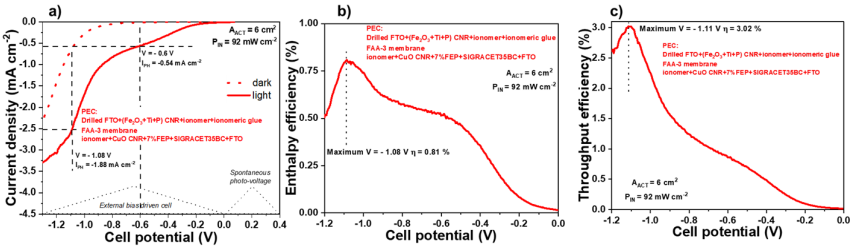

Figure S7. a) Current density under illumination and in the dark, b) enthalpy and c) throughput efficiency of optimized 6 cm² square cell with ionomeric glue.

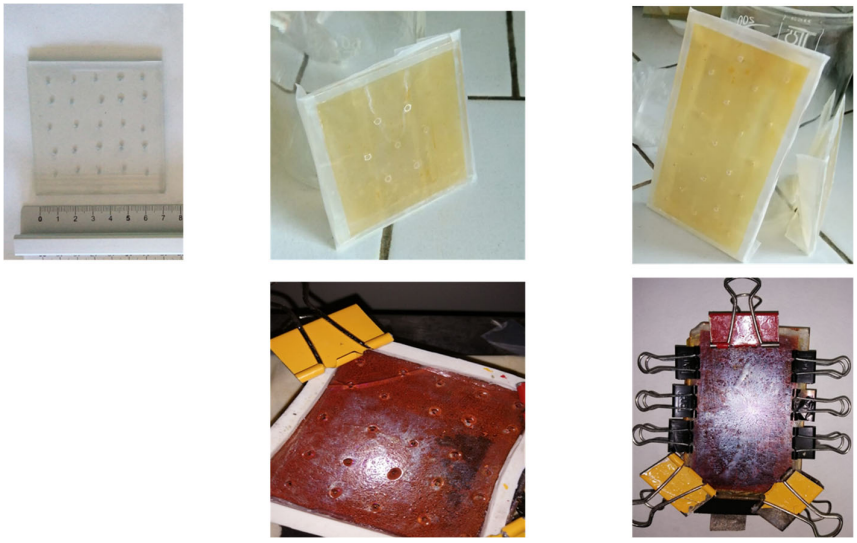

Figure S8. Preparation of hematite/FTO starting by FeOOH/drilled FTO.