

Visible Light Driven Photoanodes for Water Oxidation based on novel r-GO/ β - $\text{Cu}_2\text{V}_2\text{O}_7$ / TiO_2 nanorods composites

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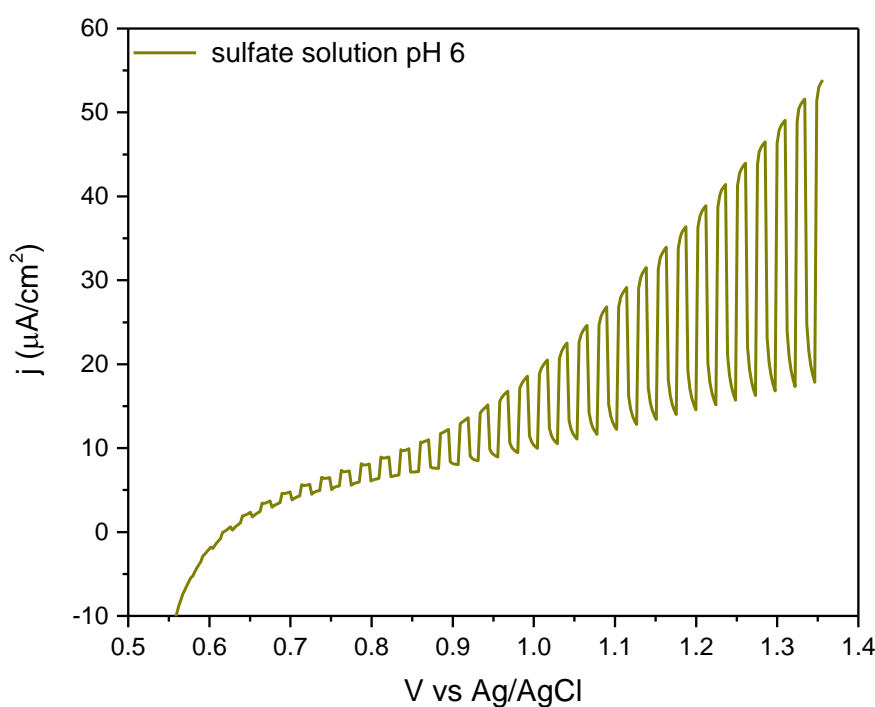


Figure S1. Chopped Linear Sweep Voltammetry of sample r-GO/ β - $\text{Cu}_2\text{V}_2\text{O}_7$ /TiO₂ in Na sulfate electrolyte.

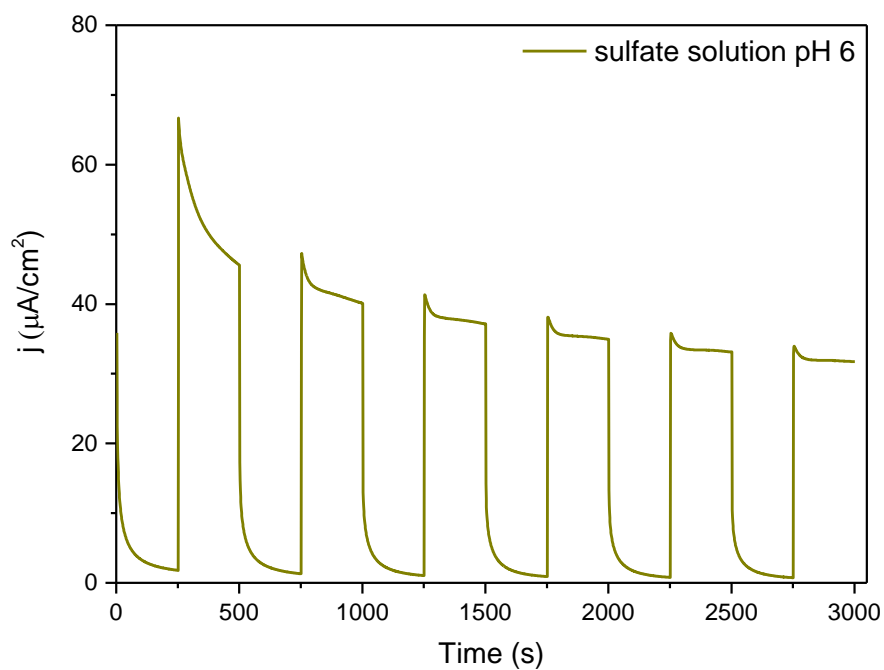


Figure S2. Chronoamperometry from sample r-GO/ β - $\text{Cu}_2\text{V}_2\text{O}_7/\text{TiO}_2$ at 1.75 V vs RHE.

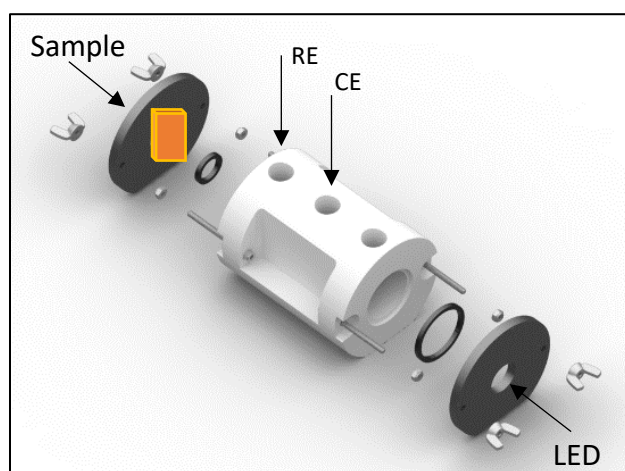


Figure S3. Drawing of the photoelectrochemical cell (Proteus Gamma I - PINE Research) (CE = Counter Electrode; RE = Reference Electrode).

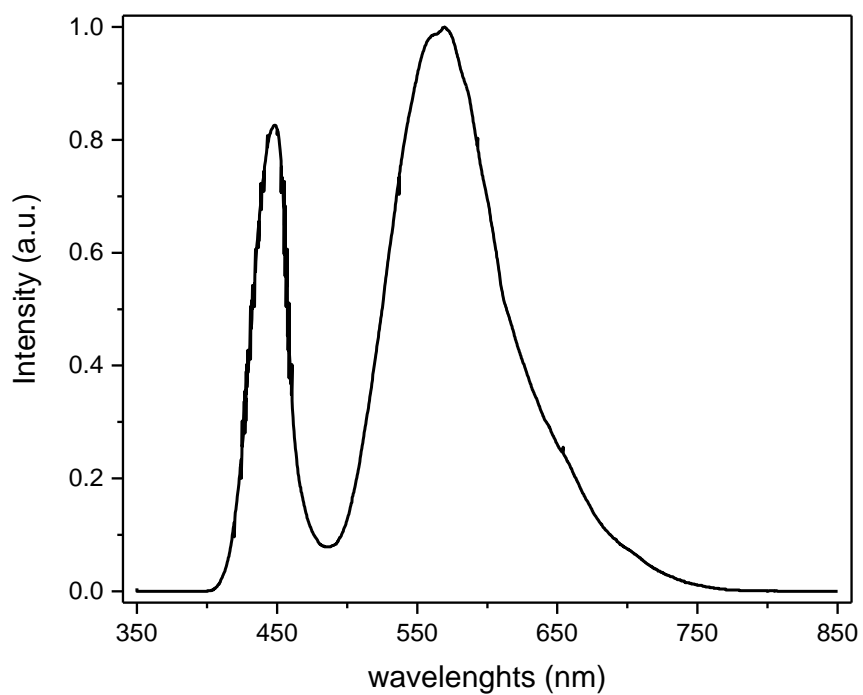


Figure S4. Emission spectrum of white LED light used in all the reported PEC measurements.

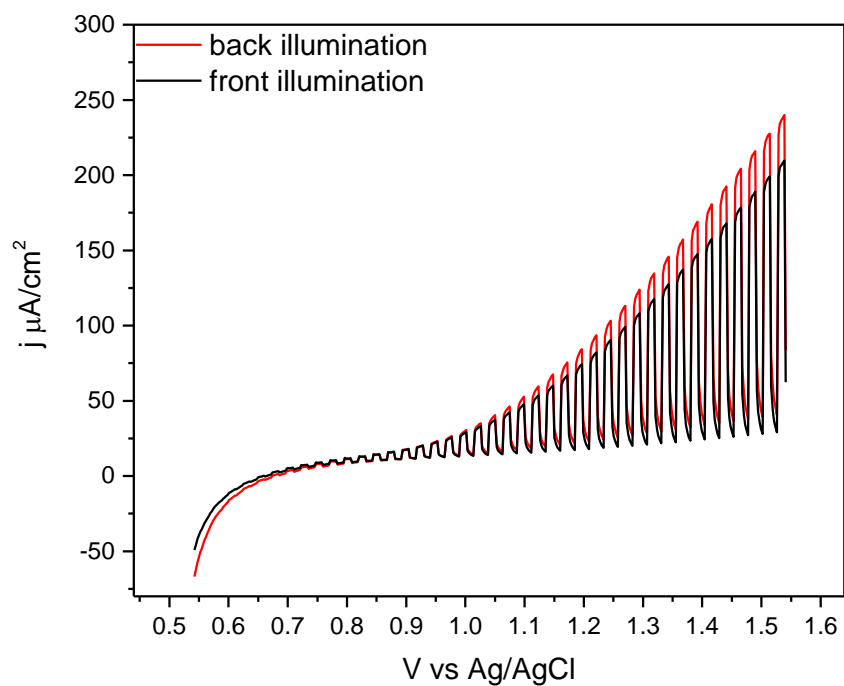


Figure S5. Chopped LSV on r-GO/ β -Cu₂V₂O₇/TiO₂ sample with front and back illumination (ca 100mW/cm²) in borate buffer solution.

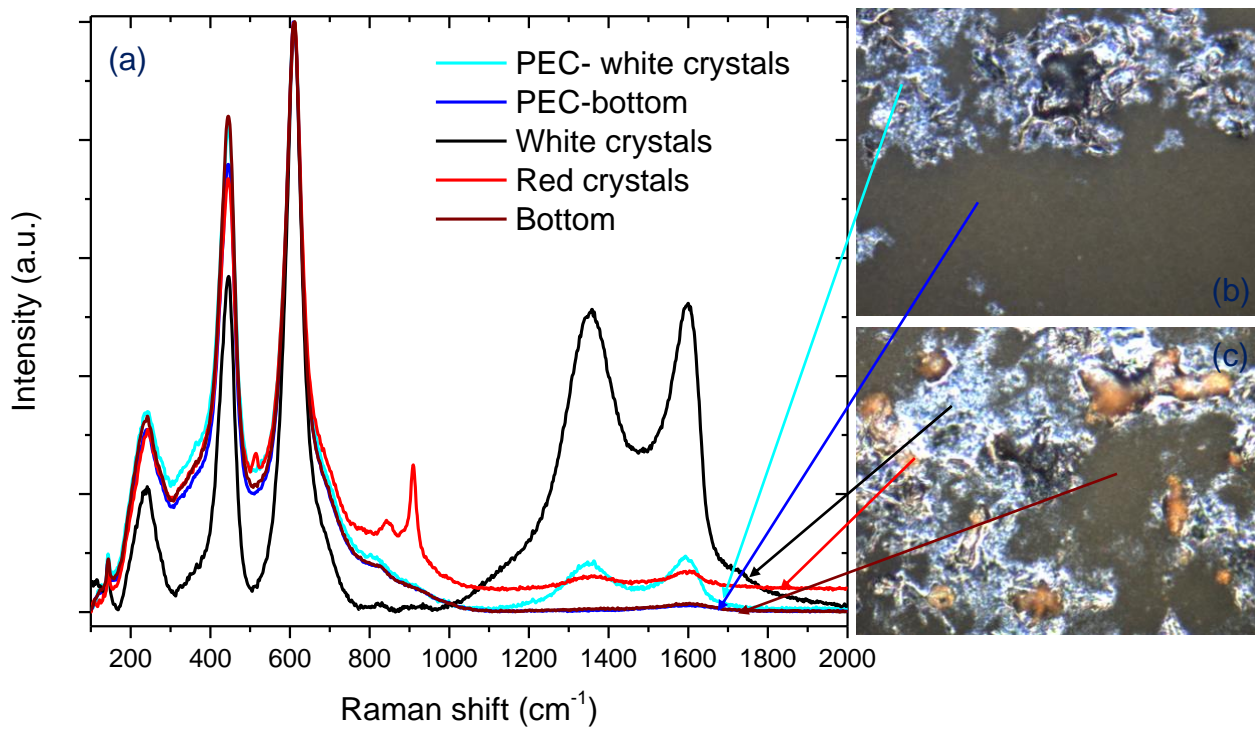


Figure S6. (a) Raman spectra before and after PEC work obtained from different areas of sample r-GO/ β - $\text{Cu}_2\text{V}_2\text{O}_7$ after (b) and before (c) PEC work.

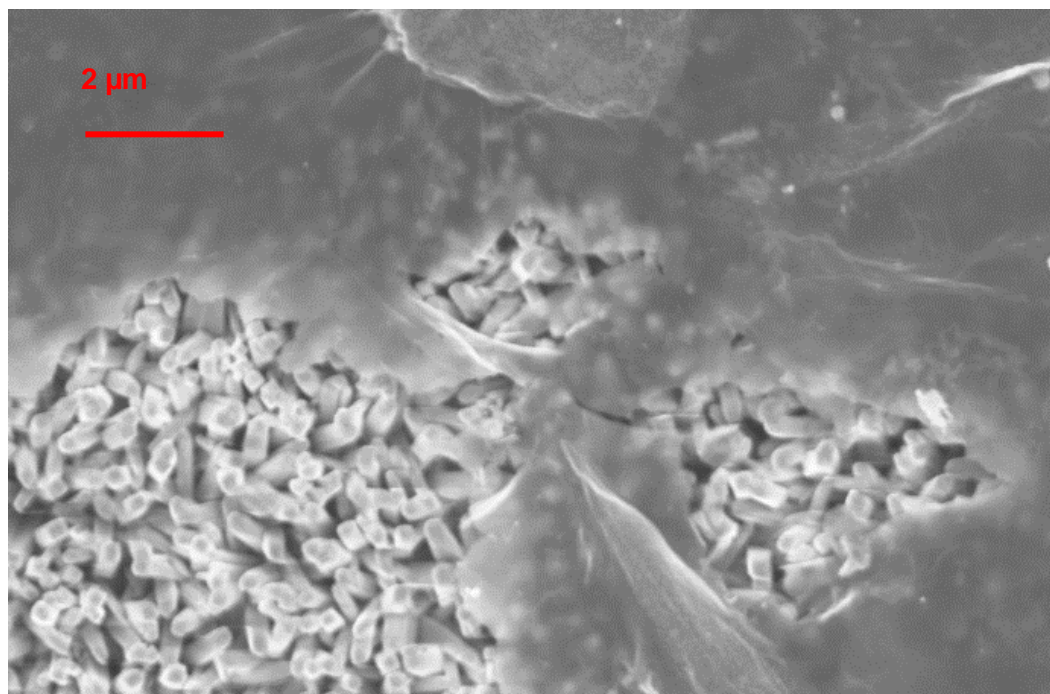


Figure S7. SEM image of sample r-GO/ β - $\text{Cu}_2\text{V}_2\text{O}_7$ / TiO_2 after PEC work.

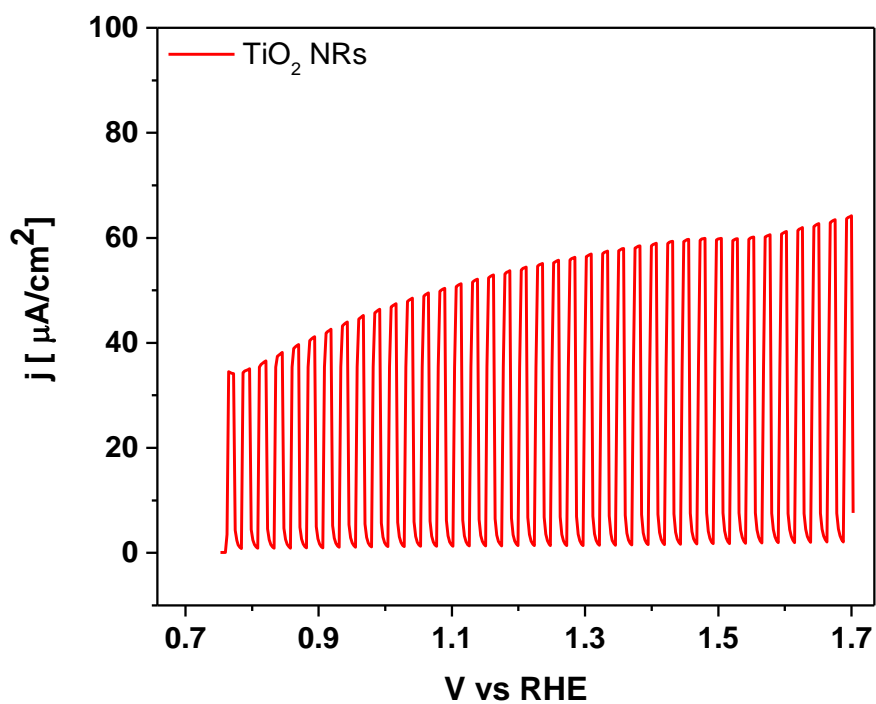


Figure S8. Chopped Linear Sweep Voltammetry of the TiO₂ nanorods substrate in borate buffer (pH 9.2) with led light intensity of c.a. 100mW/cm².

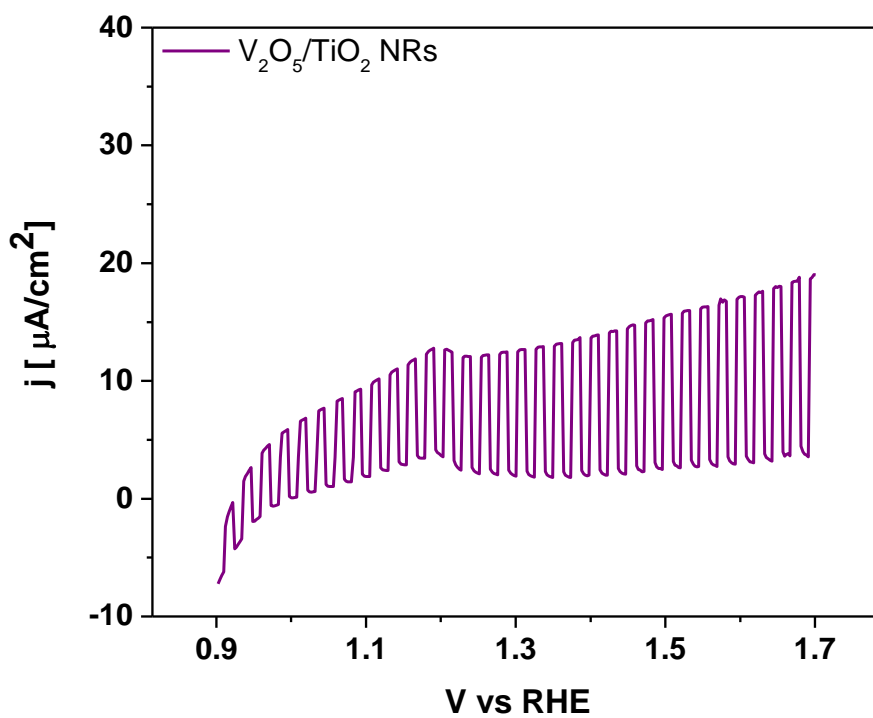


Figure S9. Chopped Linear Sweep Voltammetry of TiO₂ NRs decorated with V₂O₅ nanoparticles in borate buffer (pH 9.2)

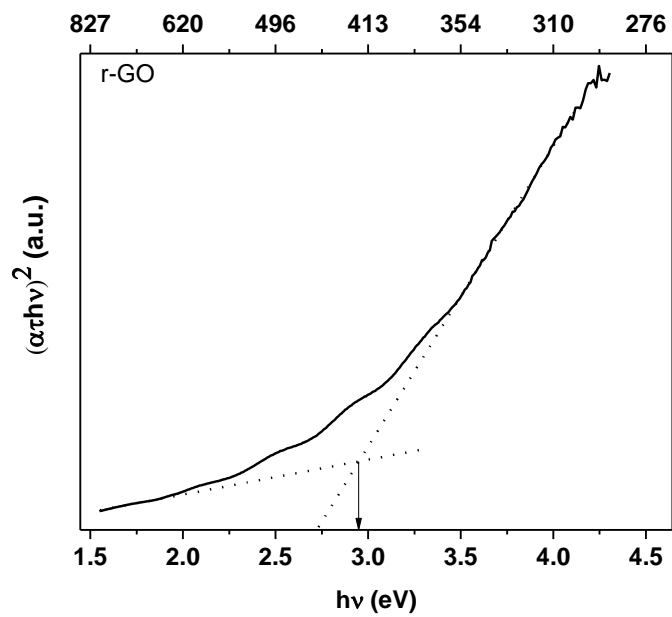


Figure S10. Tauc Plot of r-GO deposited by electrophoresis on FTO slides.