Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information:

Development of ternary iron vanadium oxide semiconductors for their applications in Photoelectrochemical Water Oxidation

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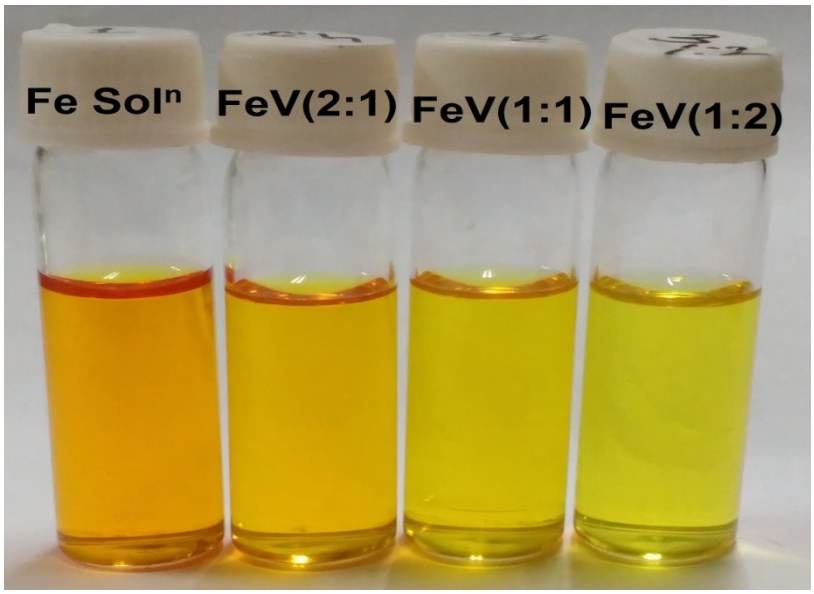
(a)



(b)

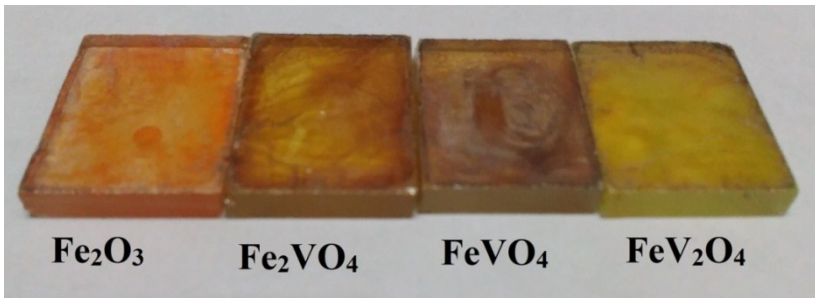


Fig. S1: Photograph of the individual **(a)** precursor solution and **(b)** Semiconductor thin films developed on ITO coated glass substrates.

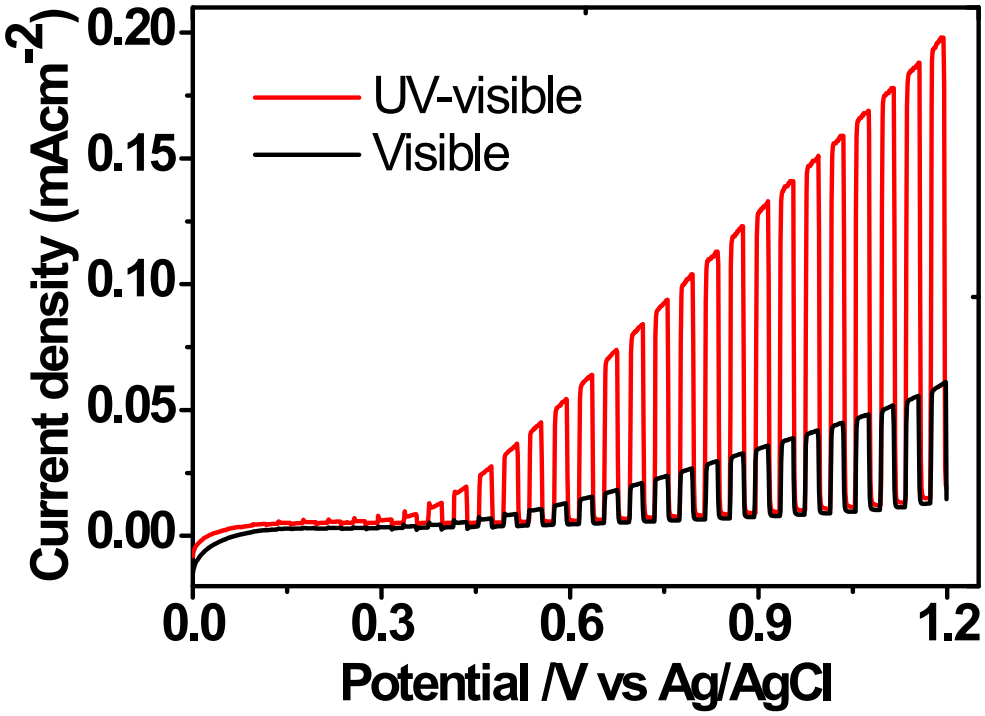


Fig. S2: LSV plot of FeV_2O_4 semiconductor electrode under periodic UV-vis and visible (using a 420nm cut-off filter) light measured in 0.1M SO_4^{2-} - PBS (pH 7).

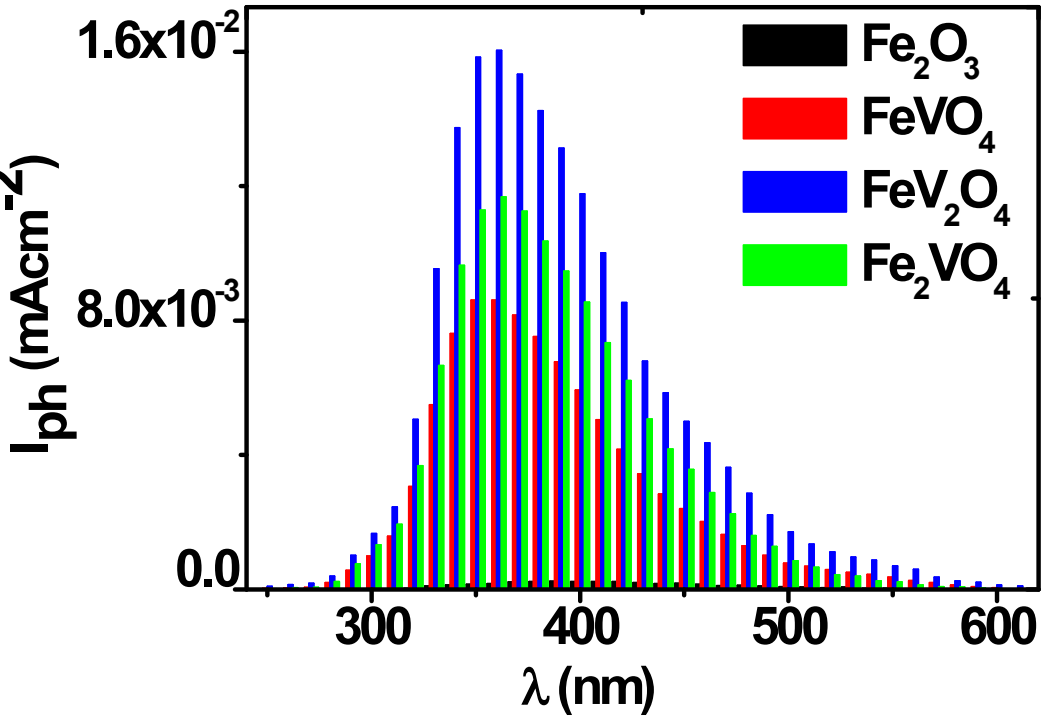


Fig. S3: Electrochemical Action spectrum of Fe-V-Oxide semiconductors film as calculated from the photocurrent spectra of the material.

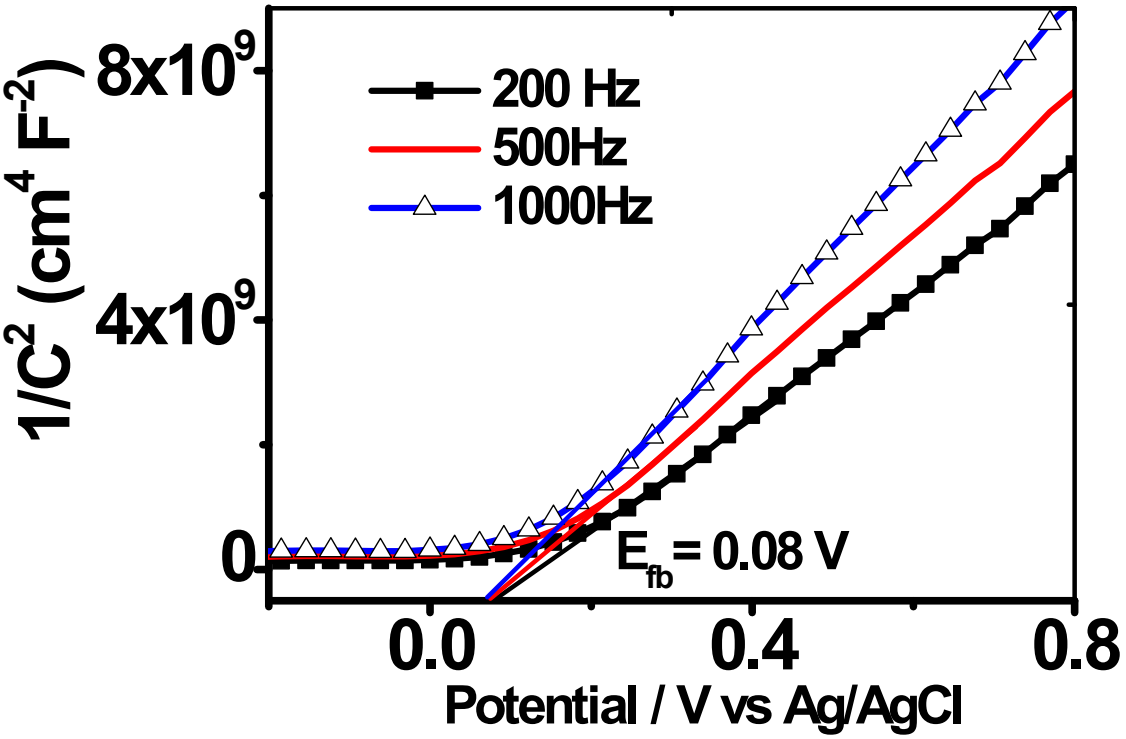


Fig. S4: Mott-Schottky plots of FeV_2O_4 film in 0.1 M Na_2SO_4 with PBS solution.

Plots were recorded at 200 Hz, 500 Hz, and 1000 Hz with an ac amplitude of 10 mV.

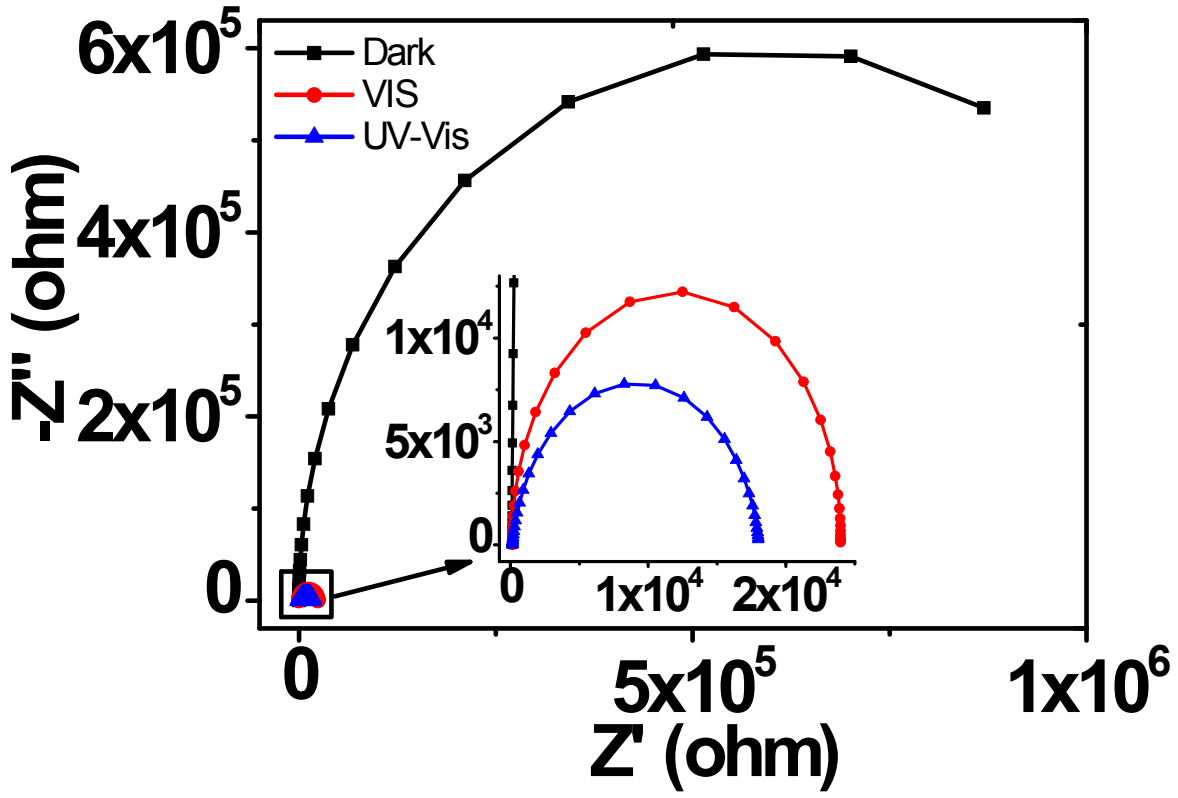


Fig. S5: Nyquist plot of FeV_2O_4 film in 0.1 M Na_2SO_4 with PBS solutions under dark, visible and UV-Vis light illumination.