

M-Au/TiO₂ (M=Ag, Pd, and Pt) Nanophotocatalyst for overall solar water splitting: Role of Interfaces

Ambrose A. Melvin, Kavya Illath, Tanmay Das, Thirumalaiswamy Raja, Somnath Bhattacharyya,
and Chinnakonda S. Gopinath*

Electronic Supplementary Information

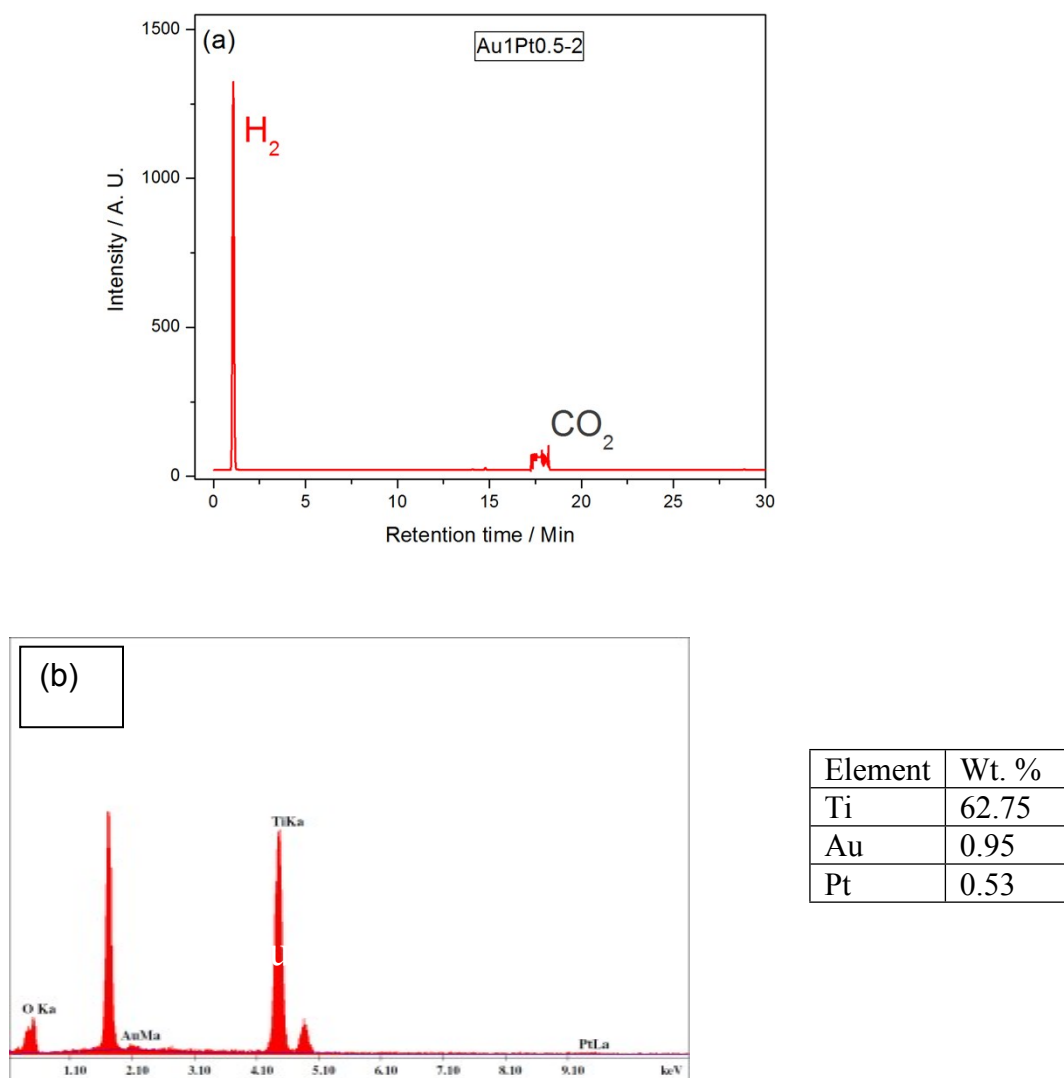


Figure SI-1: (a) Typical GC result obtained from SWS with aq. Methanol solution. (b) EDAX analysis for the estimation of elemental wt. % of Pt_{0.5}-Au₁/TiO₂.

SI-2 – HAADF-STEM

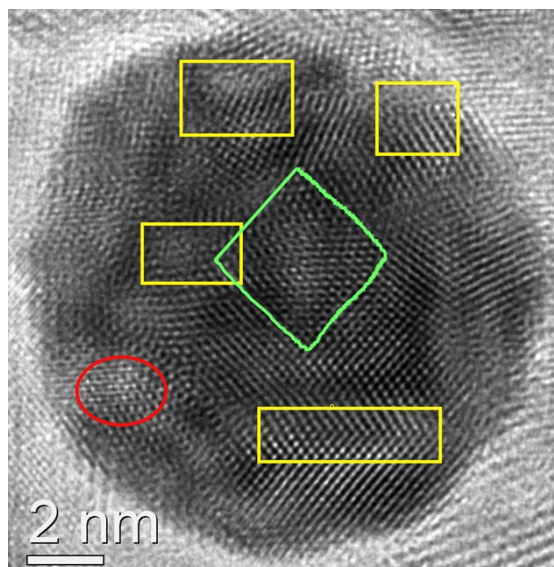


Figure SI-2: HRTEM of $\text{Pt}_{0.5}\text{-Au}_1/\text{TiO}_2$ nanocomposite in which clearly reveal the junction formation (red circle) between TiO_2 and metal nanoparticle.

SI-3 – X-ray diffraction

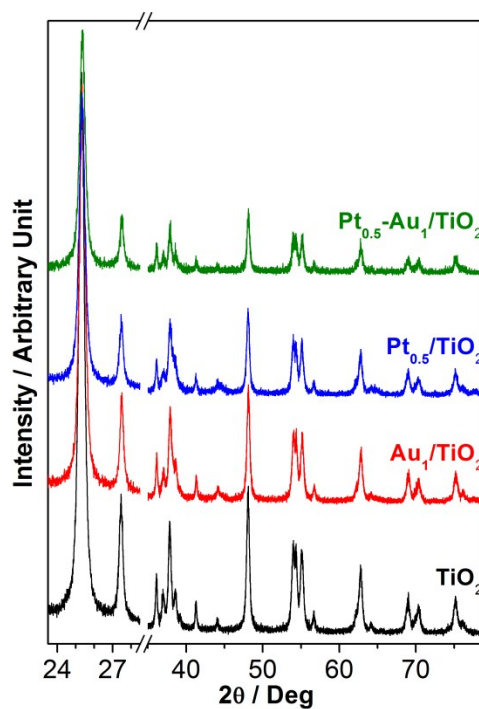


Figure SI-3: XRD patterns of $\text{Pt-Au}/\text{TiO}_2$ composites.

SI-4 – Analysis of PEC data

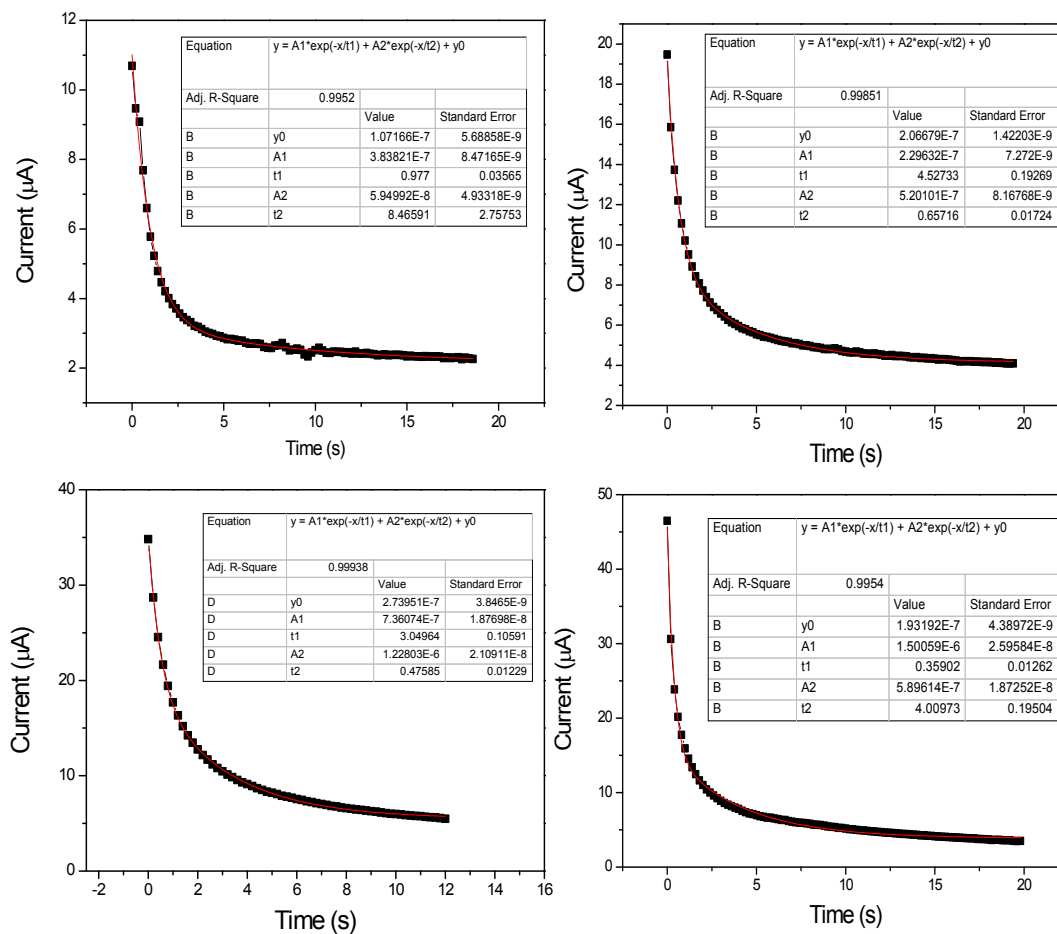


Figure SI-4: Fitted values of decay constant from PEC measurements carried out by fitting to a bi-exponential function to decay i-t profile with two time constant.