

## Supporting Information

# Modification of Eosin Y and Cobalt Molecular Catalyst System with Reduced Graphene Oxide for Enhanced Photocatalytic Hydrogen Production

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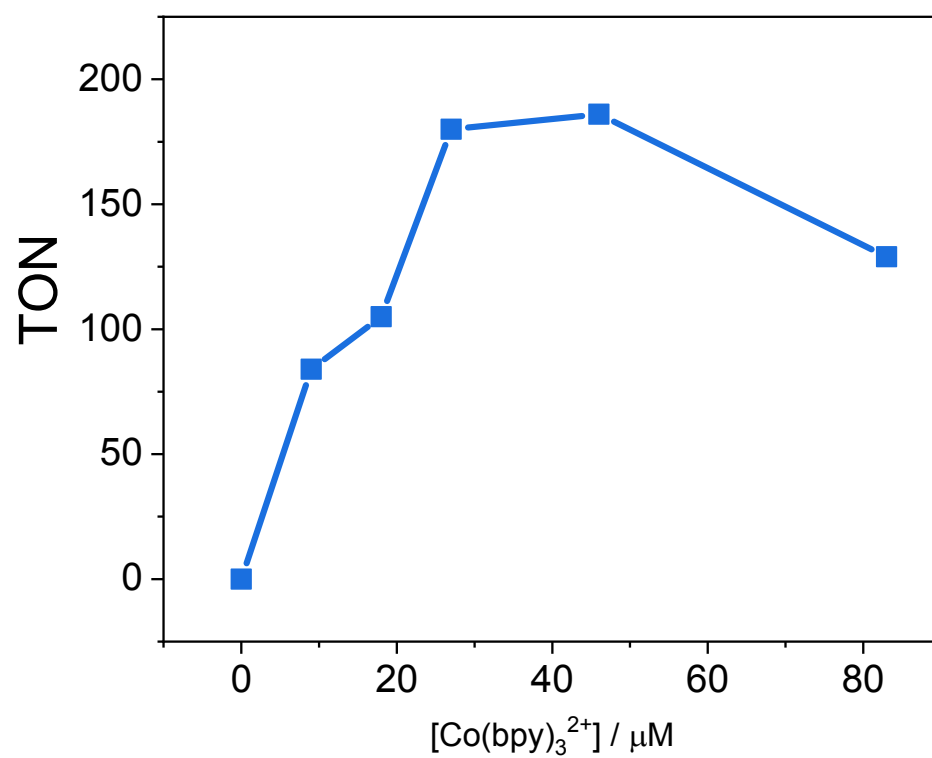
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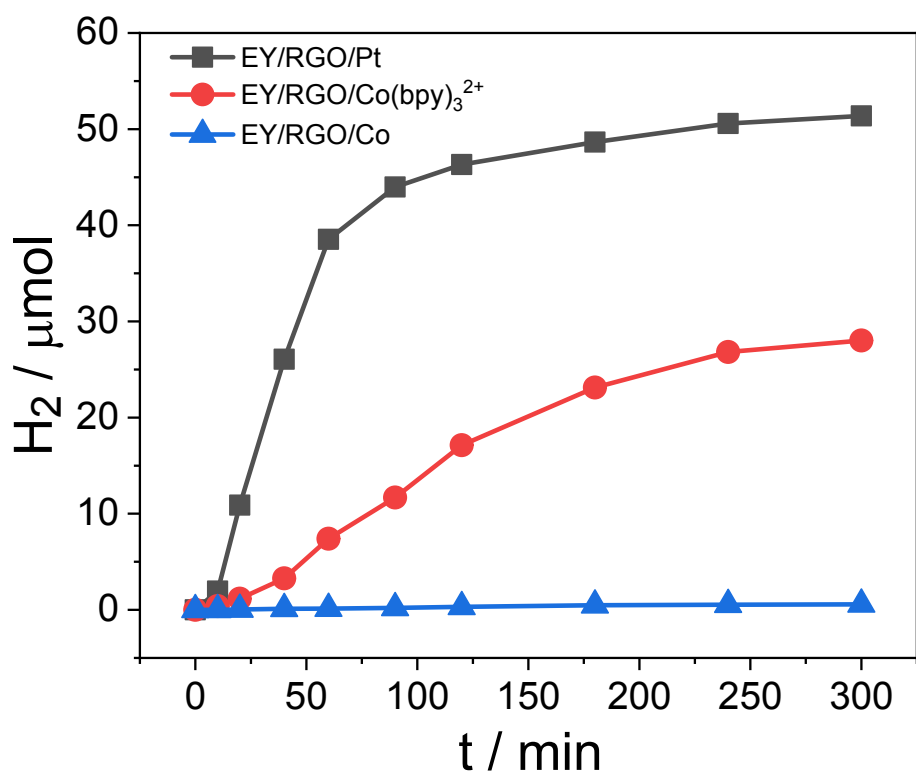
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**Figure S1** TON as a function of the  $\text{Co(bpy)}_3^{2+}$  concentration at pH 10.2 in ACN- $\text{H}_2\text{O}$  after 2.5 h of visible light irradiation; other sample concentration:  $[\text{RGO}] = 6.7 \mu\text{g mL}^{-1}$ ,  $[\text{EY}] = 0.75 \text{ mM}$ , TEA (5 vol%),).



**Figure S2.** The amount of H<sub>2</sub> evolved under visible light irradiation: EY/RGO/Pt (black), EY/RGO/ Co(bpy)<sub>3</sub><sup>2+</sup> (red), EY/RGO/Co (blue). Reaction conditions: [EY] = 0.4 mM, [Co(bpy)<sub>3</sub><sup>2+</sup>]=[H<sub>2</sub>PtCl<sub>6</sub>] =[CoSO<sub>4</sub>] = 45 μM [RGO] = 13 μg mL<sup>-1</sup> solvent: ACN-H<sub>2</sub>O (1:1 v/v) [TEA] 5 vol%, pH = 10.2.