

## Supporting material

### Highly electrocatalytic performance of platinum and manganese dioxide nanoparticles decorated reduced graphene oxide sheets for methanol electro-oxidation

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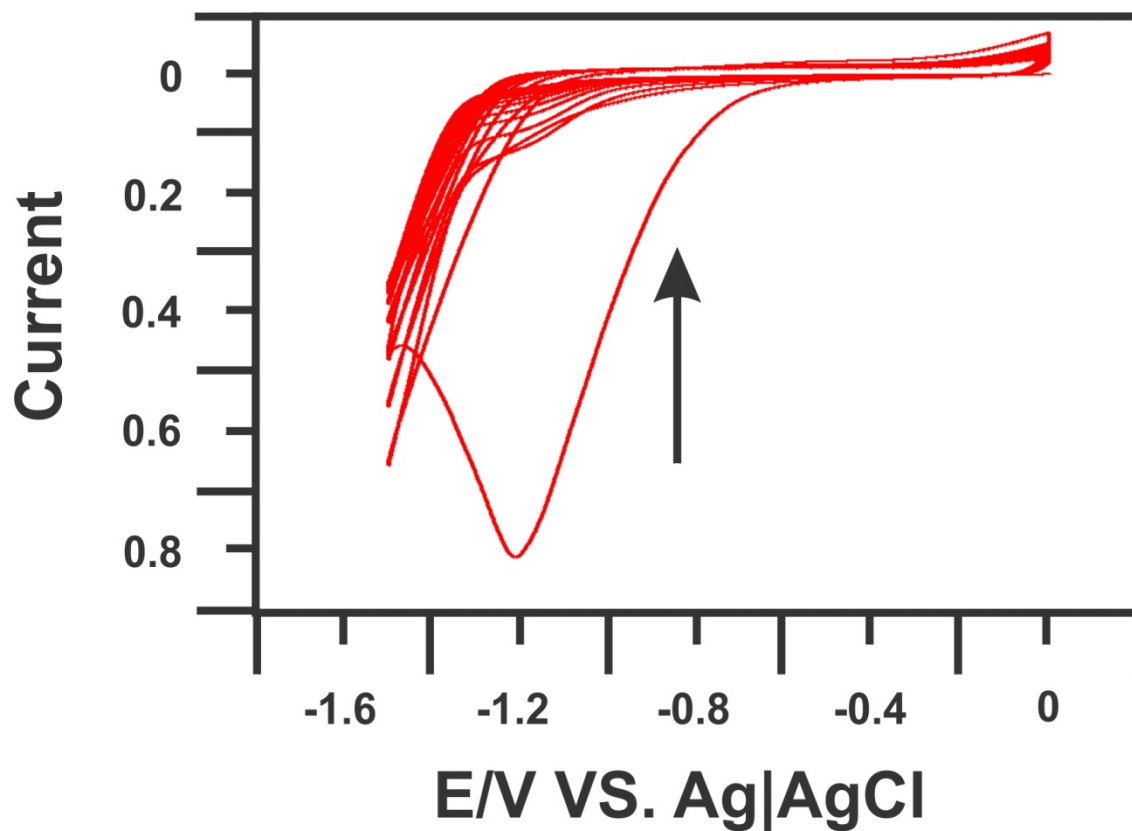
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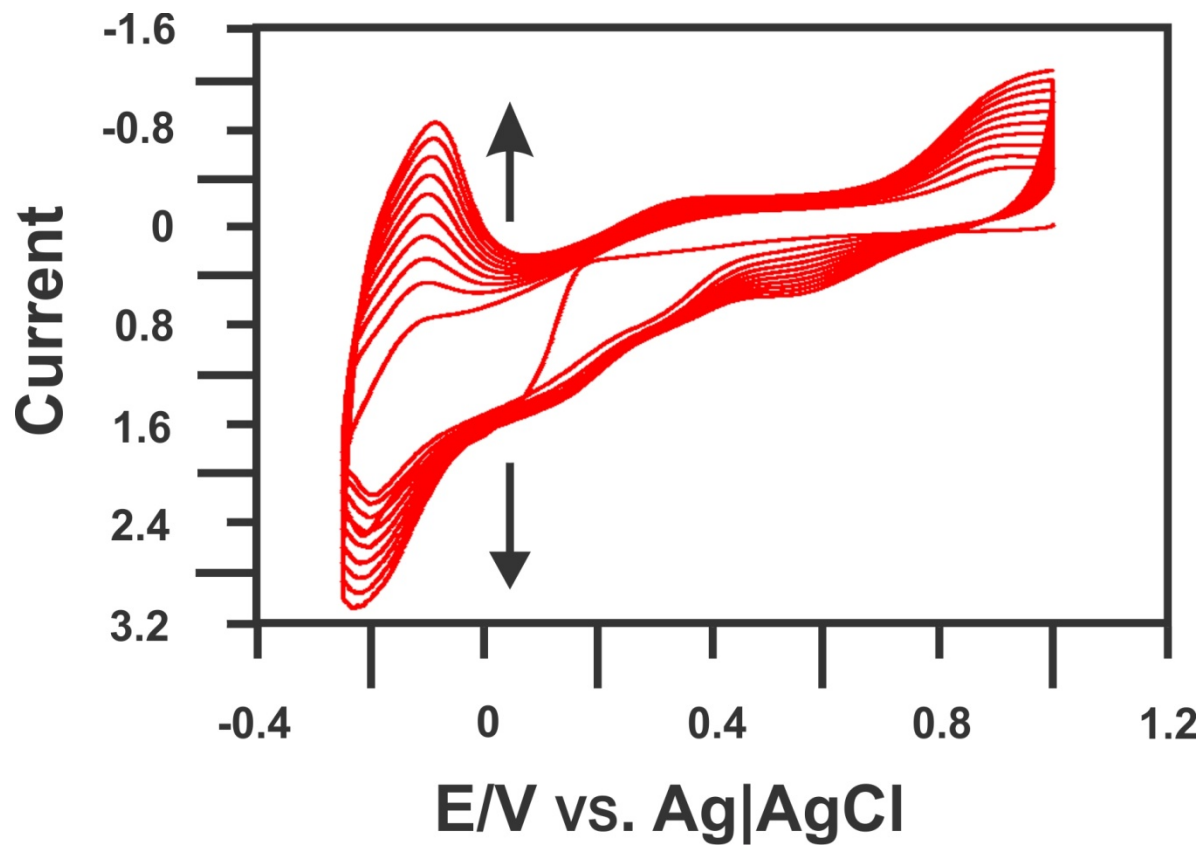
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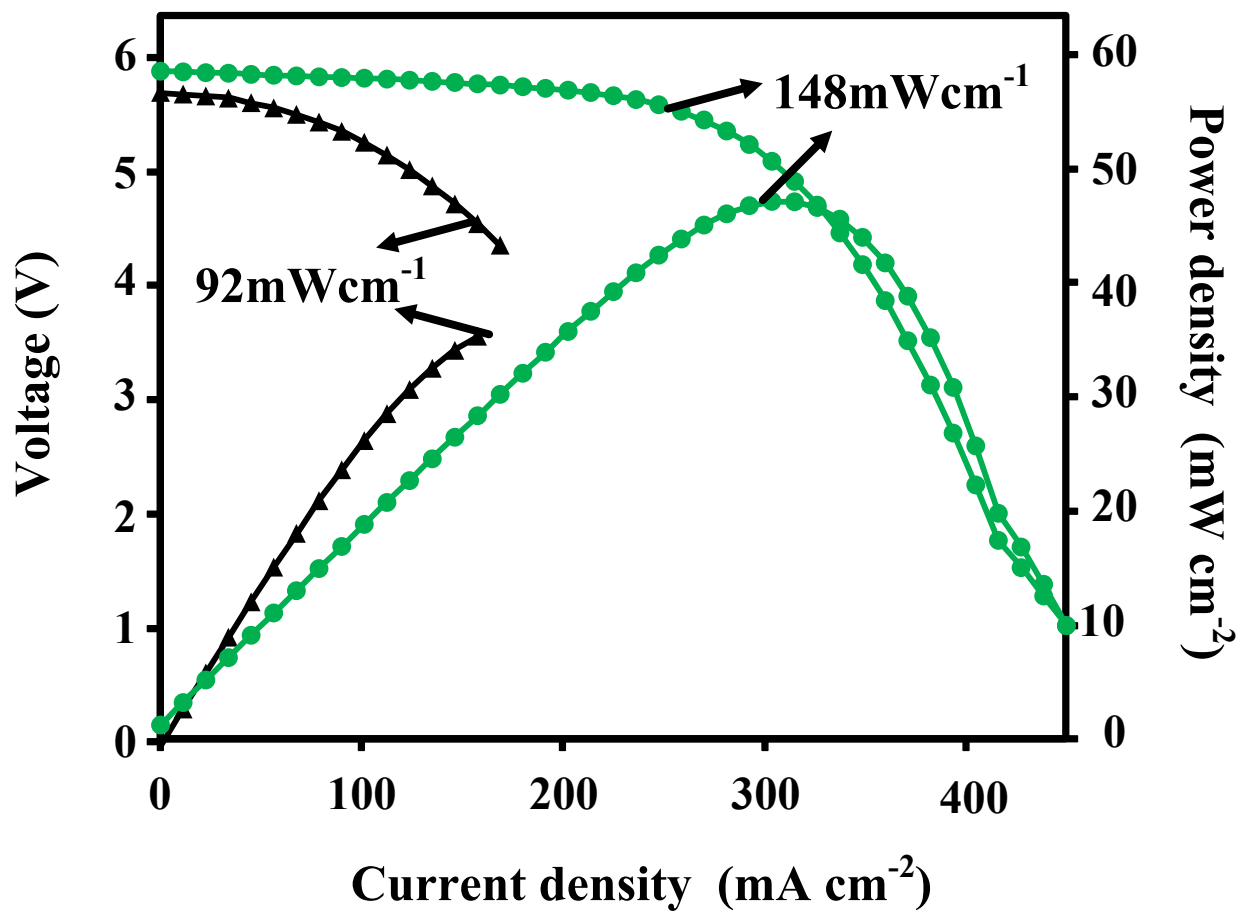
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**Fig S1.** Electrochemical reduction of GO for 30 cycles in PBS (pH 5) Scan rate = 50 mV s<sup>-1</sup>.



**Fig S2.** Repeated cyclic voltammogram of nano Pt film electrodeposited on GCE from 0.5 M  $\text{H}_2\text{SO}_4$  containing 1 mM of  $\text{K}_2\text{PtCl}_6$  and potential scan between -0.25 to 1.0 V for 10 cycles (Scan rate of  $0.05 \text{ V s}^{-1}$ ).



**Fig S3.** Cell polarization and power density curves obtained using Pt/MnO<sub>2</sub>/ERGO modified electrodes as a anode and an Pt/C black catalyzed cathode in electrolyte 0.1 M H<sub>2</sub>SO<sub>4</sub> + 1M CH<sub>3</sub>OH aqueous solutions; Nafion 112; cell temperature 30°C.