

Supporting information

Hydrothermal Synthesis of MnO₂/Reduced Graphene Oxide Composite for 4-Nitrophenol Sensing Application

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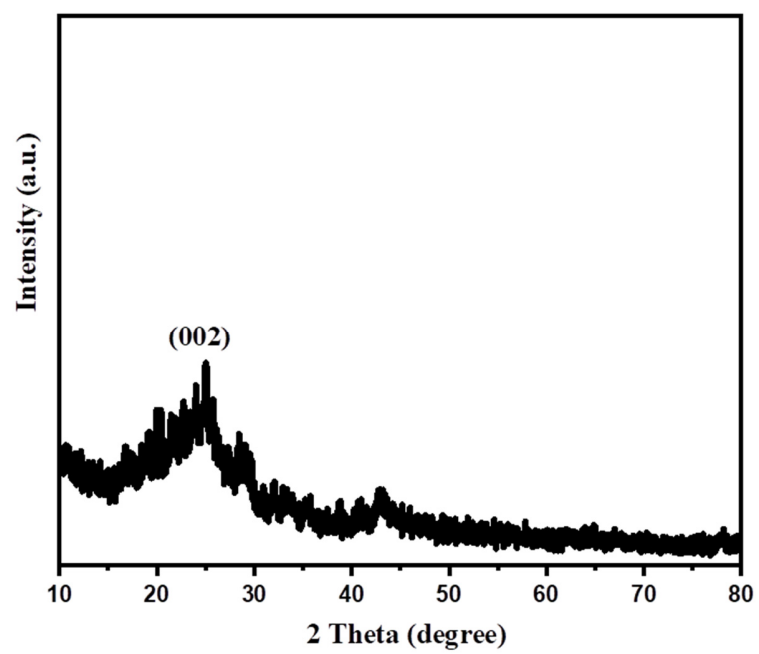


Figure S1. XRD pattern of rGO.

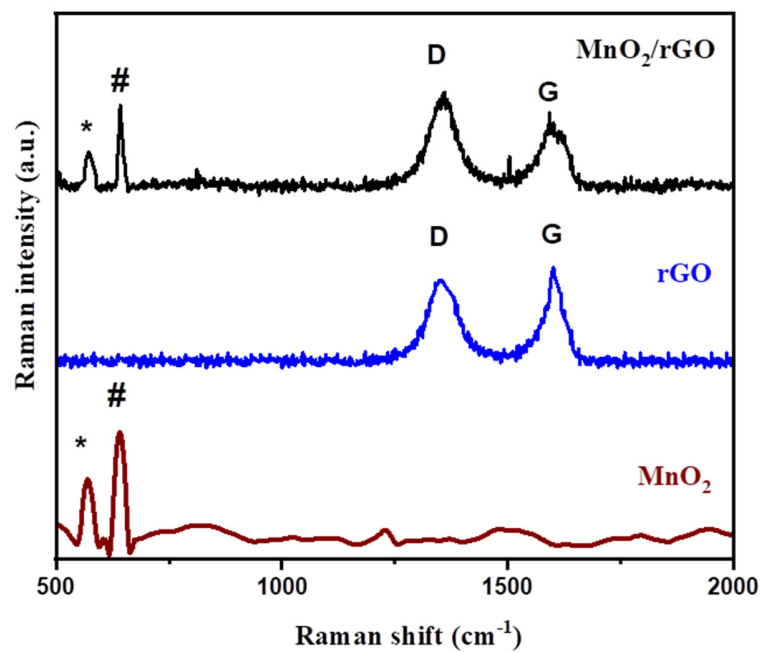


Figure S2. Raman spectra of rGO, MnO₂ and MnO₂/rGO.

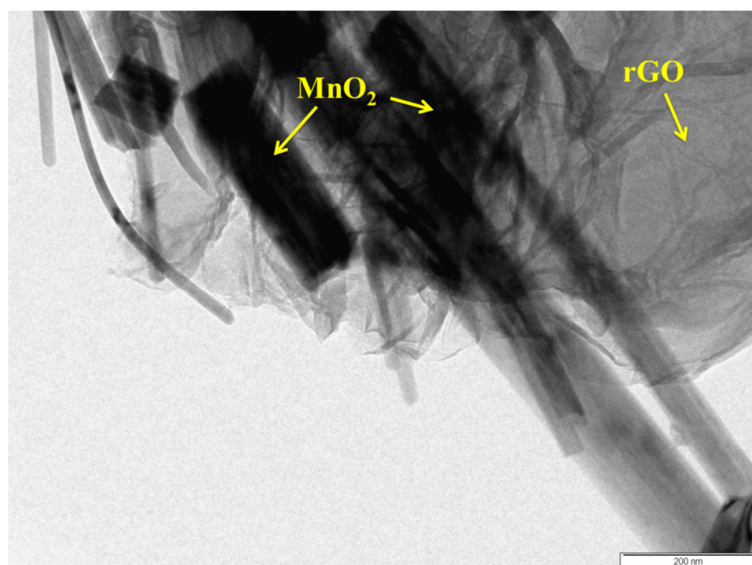


Figure S3. TEM image of MnO_2/rGO .

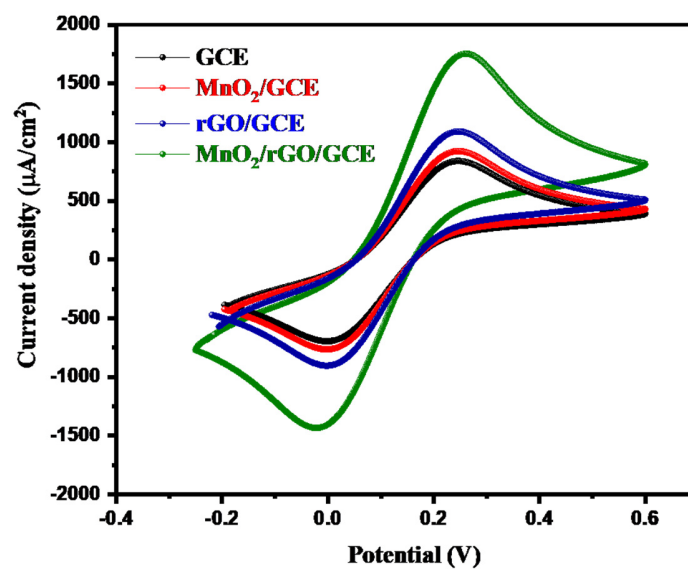


Figure S4. CV of GCE, MnO_2/GCE , rGO/GCE and $\text{MnO}_2/\text{rGO}/\text{GCE}$

in 5 mM $[\text{Fe}(\text{CN})_6]^{3-/4-}$ redox couple at scan rate of 100 mV/s.

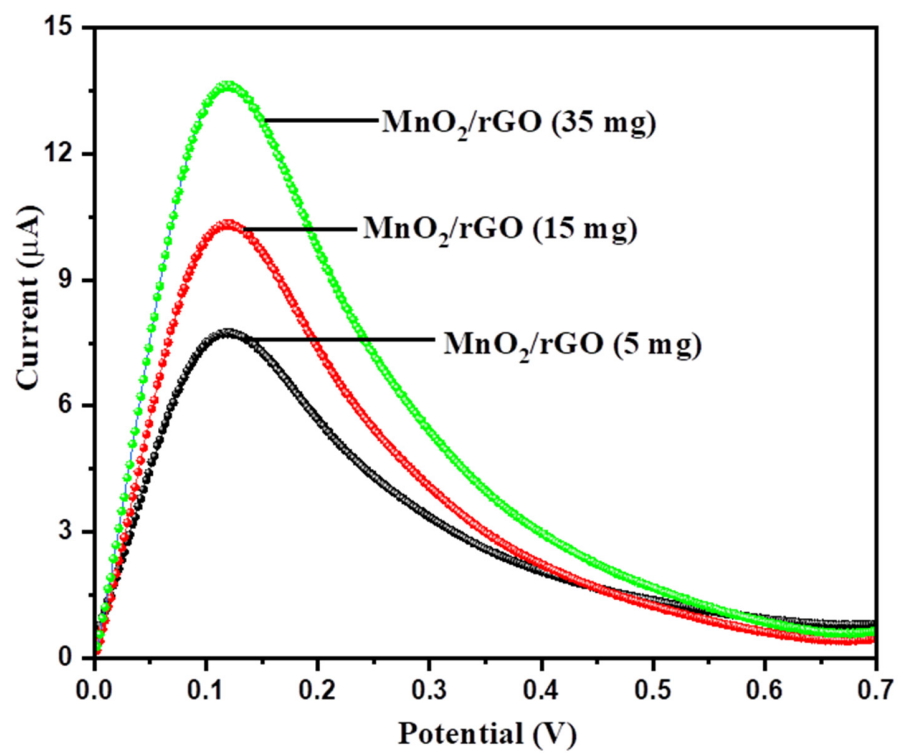


Figure S5. LSV curves of MnO₂/rGO/GCE (5 mg, 15 mg and 35 mg) in 50 μM 4-NP (PBS = 0.1 M; pH = 7.0; scan rate = 50 mV/s).

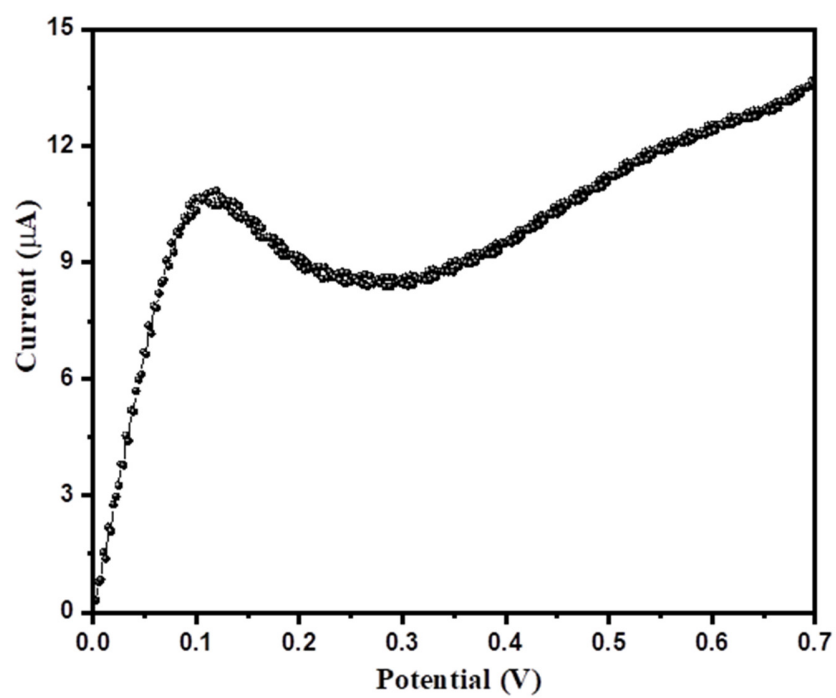


Figure S6. LSV curve of MnO₂/rGO/GCE (physically mixed) in 50 μM 4-NP (PBS =0.1 M; pH= 7.0; scan rate = 50 mV/s).