

# N-Doping Holey Graphene TiO<sub>2</sub>-Pt Composite as Efficient Electrocatalyst for Methanol Oxidation

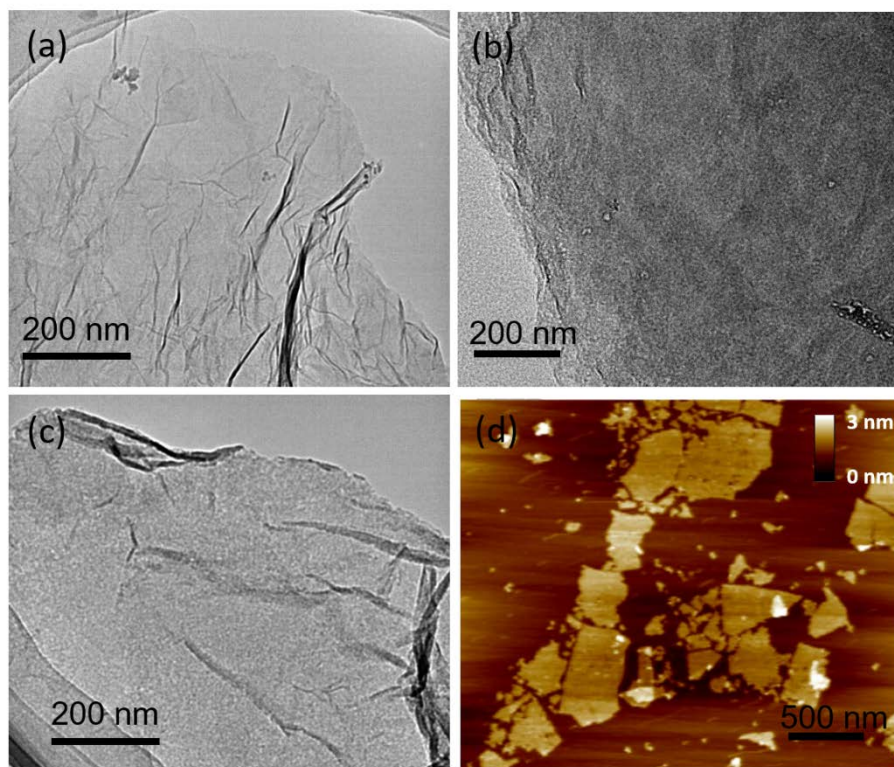
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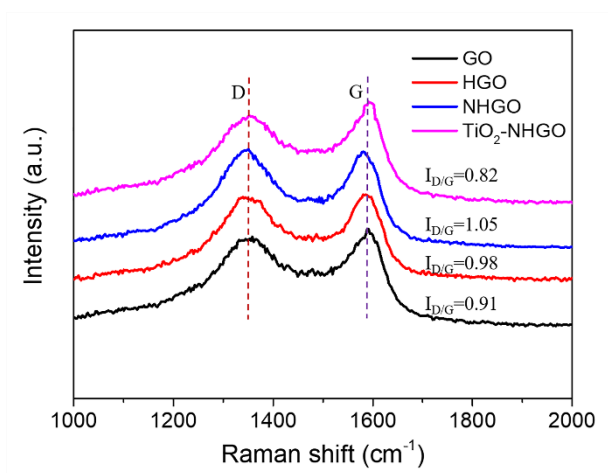
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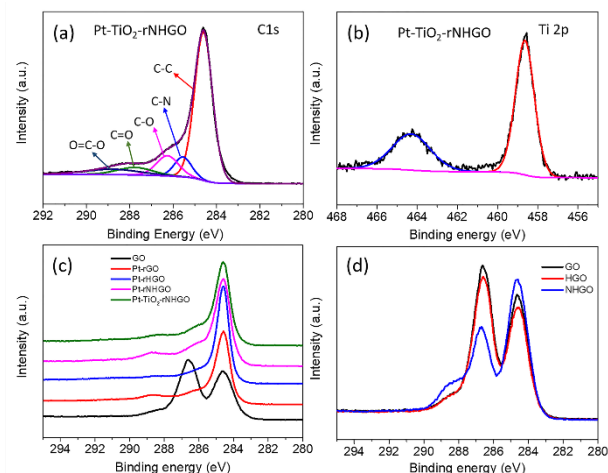
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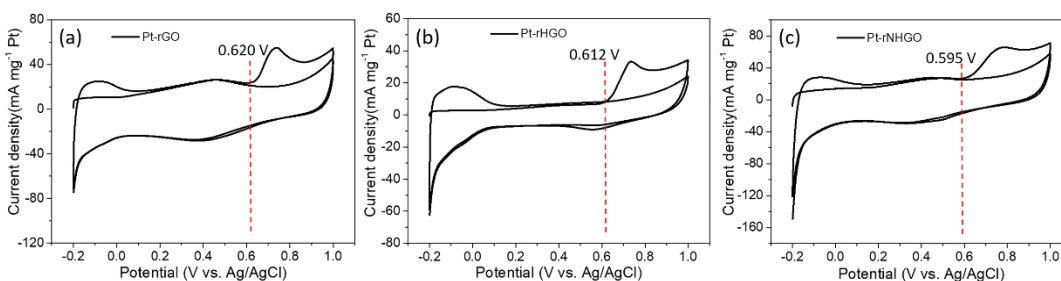
**Figure S1.** TEM images of GO (a), NHGO (b), HGO (c), and AFM image of HGO (d)



**Figure S2.** Raman spectra of GO, HGO, NHGO, and TiO<sub>2</sub>-NHGO



**Figure S3.** XPS spectra of C1s (a), Ti 2p (b) of Pt-TiO<sub>2</sub>-rNHGO, C1s comparison of GO, Pt-rGO, Pt-rHGO, Pt-rNHGO and Pt-TiO<sub>2</sub>-rNHGO (c), and GO, HGO and NHGO (d).



**Figure S4.** CO-stripping CVs of Pt-rGO (a), Pt-rHGO (b), and Pt-rNHGO (c) catalysts in a solution of 0.5 M H<sub>2</sub>SO<sub>4</sub> at a scan rate of 50 mVs<sup>-1</sup>.