

Supporting information

A Novel Graphdiyne Based Catalyst for Effective Hydrogenation Reaction

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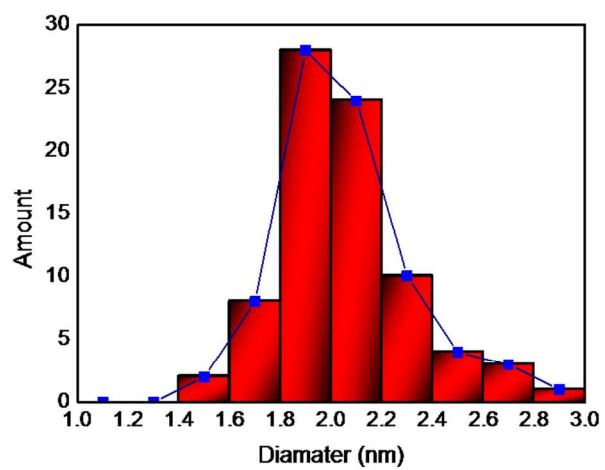


Figure S1. Statistical size distribution of Pt NPs.

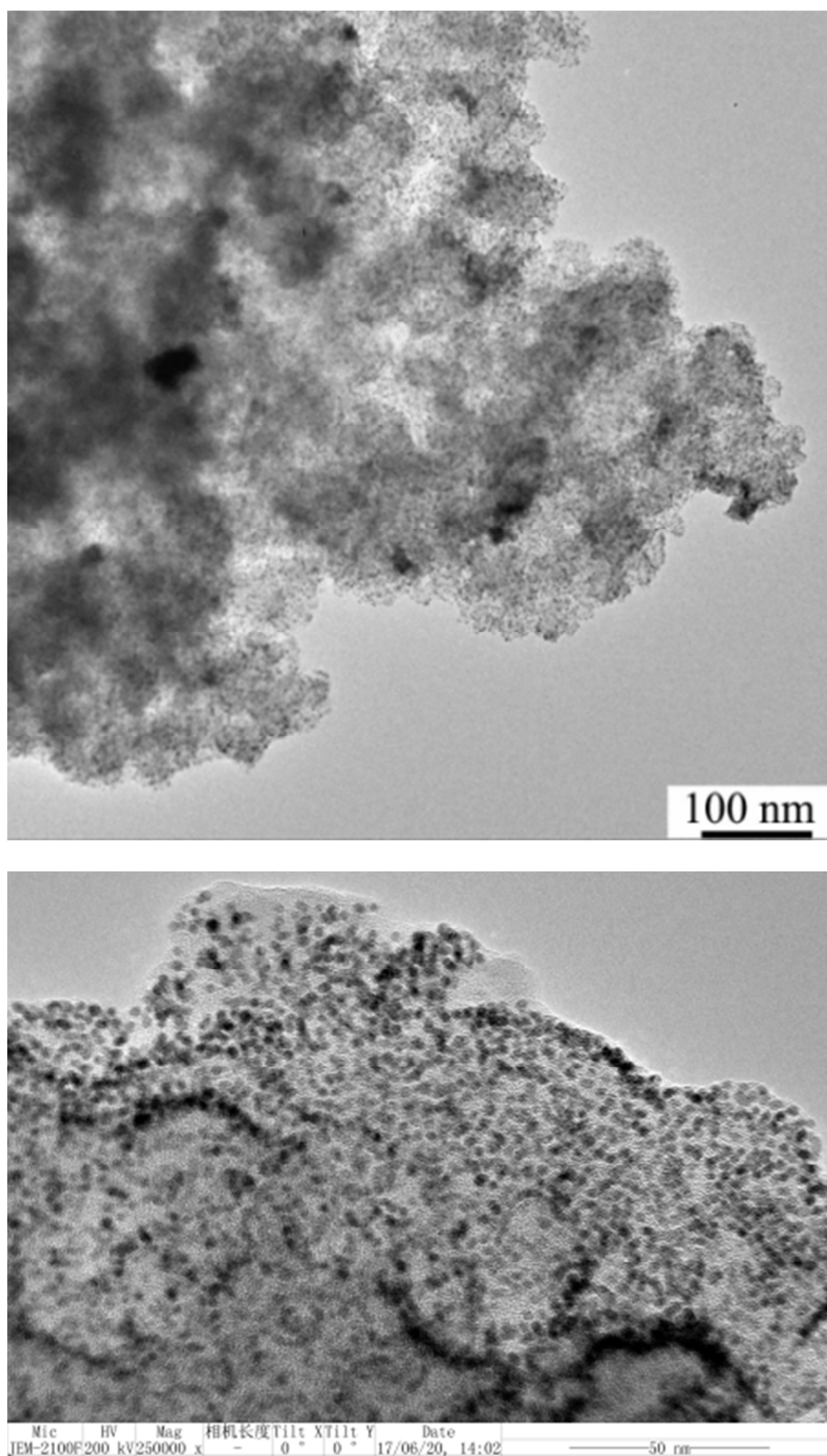


Figure S2. Stability investigation of the GD-PtNPs: TEM image of as prepared Pt-GDY and that stored over 3 years.

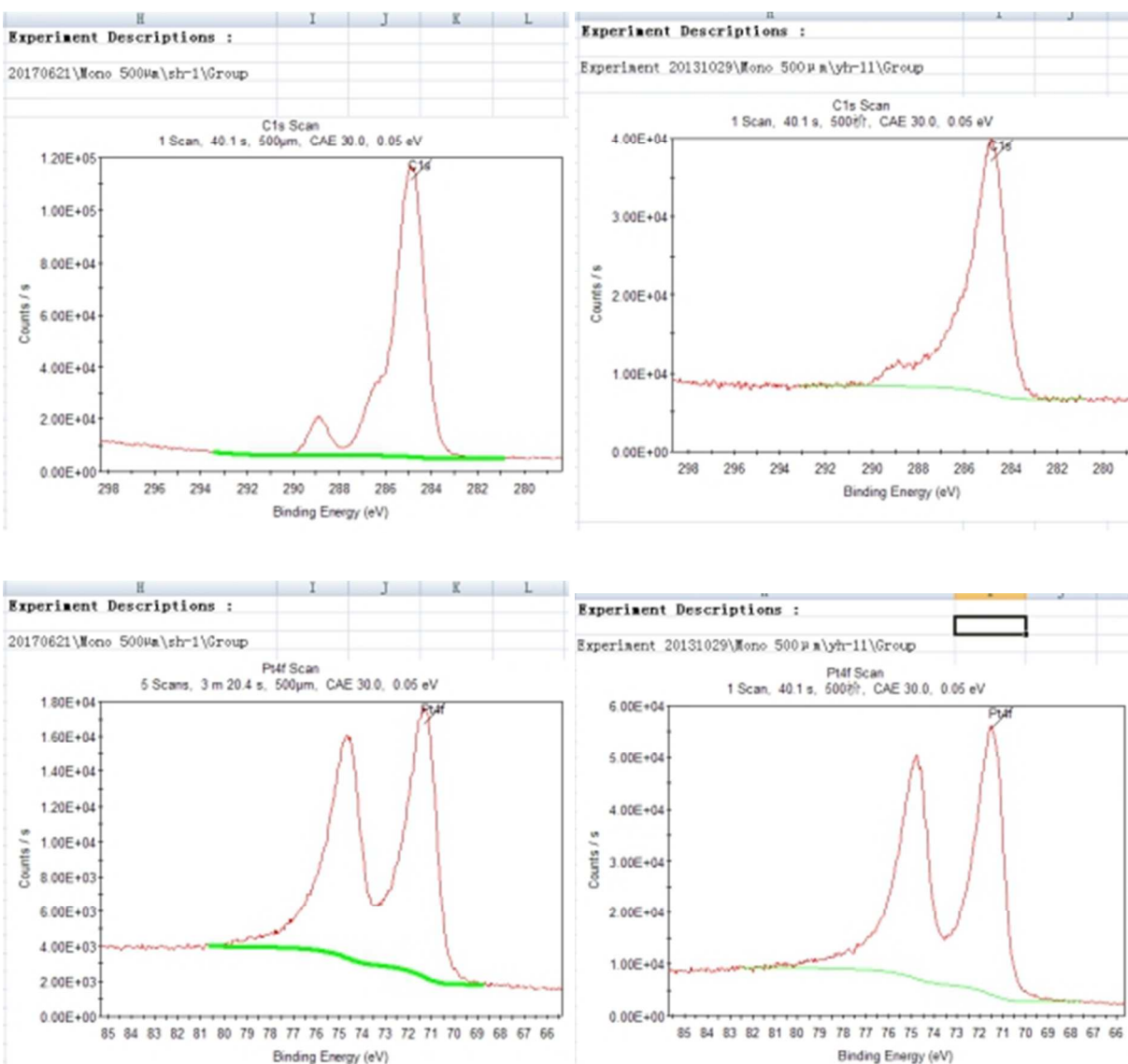


Figure S3. Stability investigation of the GD-PtNPs: original C 1s and (c) Pt 4f core level XPS spectra of Pt-GDY and that of the samples after stored more than 3 years.

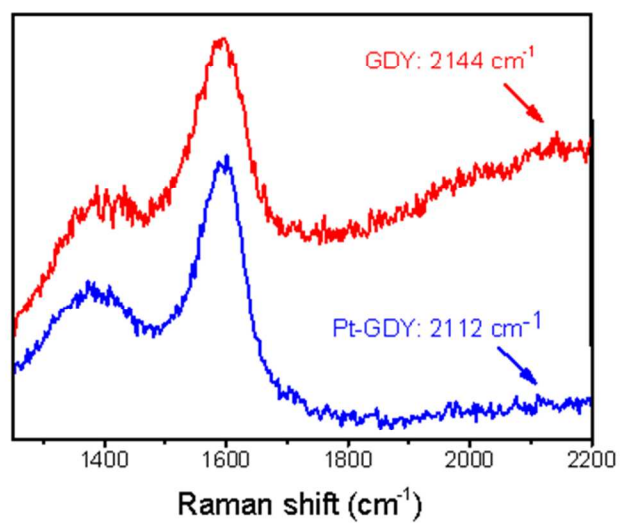


Figure S4. A comparison of Raman spectra of GDY and Pt-GDY.

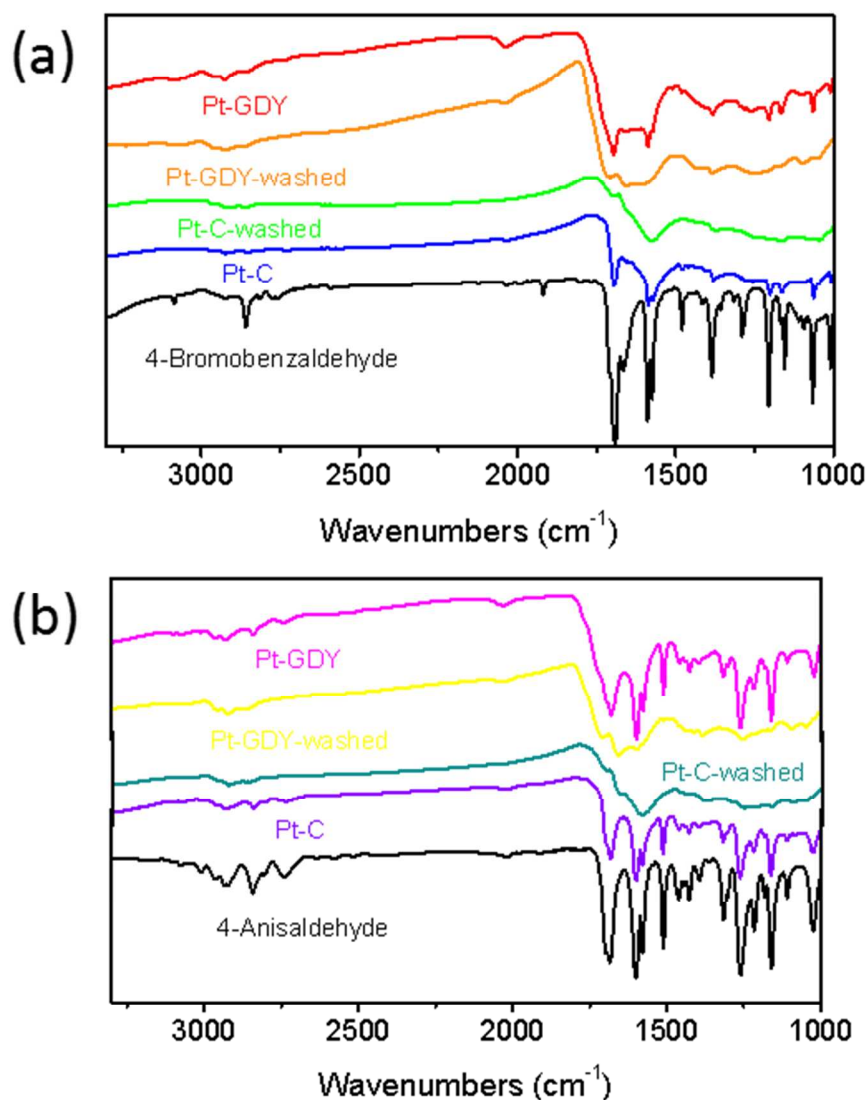


Figure S5. (a) IR spectra of 4-Bromobenzaldehyde and different catalysts with 4-Bromobenzaldehyde. 5 mg Pt-C and Pt-GDY were dispersed in solution (5 mg 4-Bromobenzaldehyde in 100 μL ethanol). After sonicating for 1 hour, each sample was divided into two: one was cleaned by ethanol several times and dried; the other was directly dried under vacuum overnight to remove the solvent. (b) IR spectra of p-Anisaldehyde and different catalysts with p-Anisaldehyde. The procedures were the same with (a).