

Supporting Information for

**Graphene Uniformly Decorated with Gold Nanodots: *In Situ* Synthesis,  
Enhanced Dispersibility and Its Applications**

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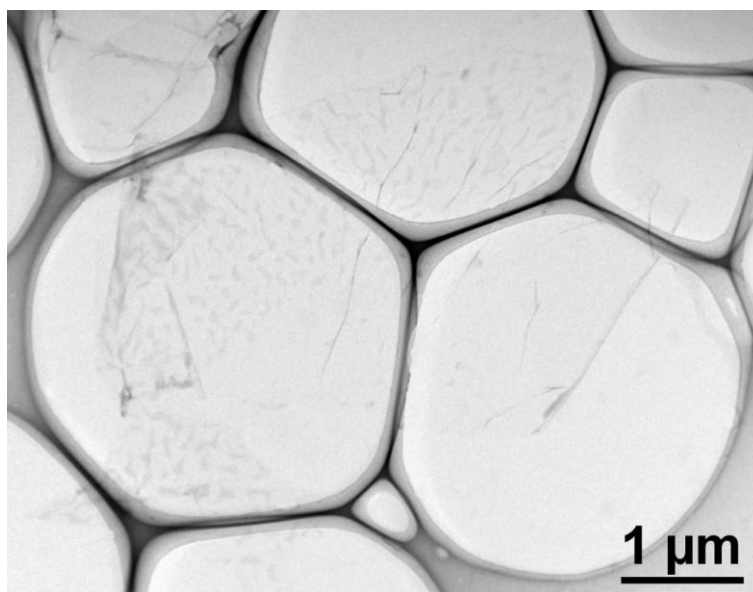
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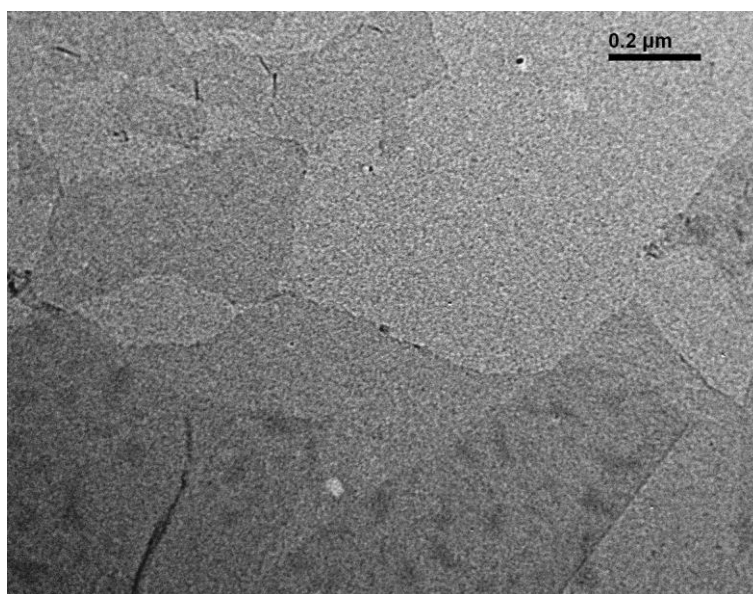
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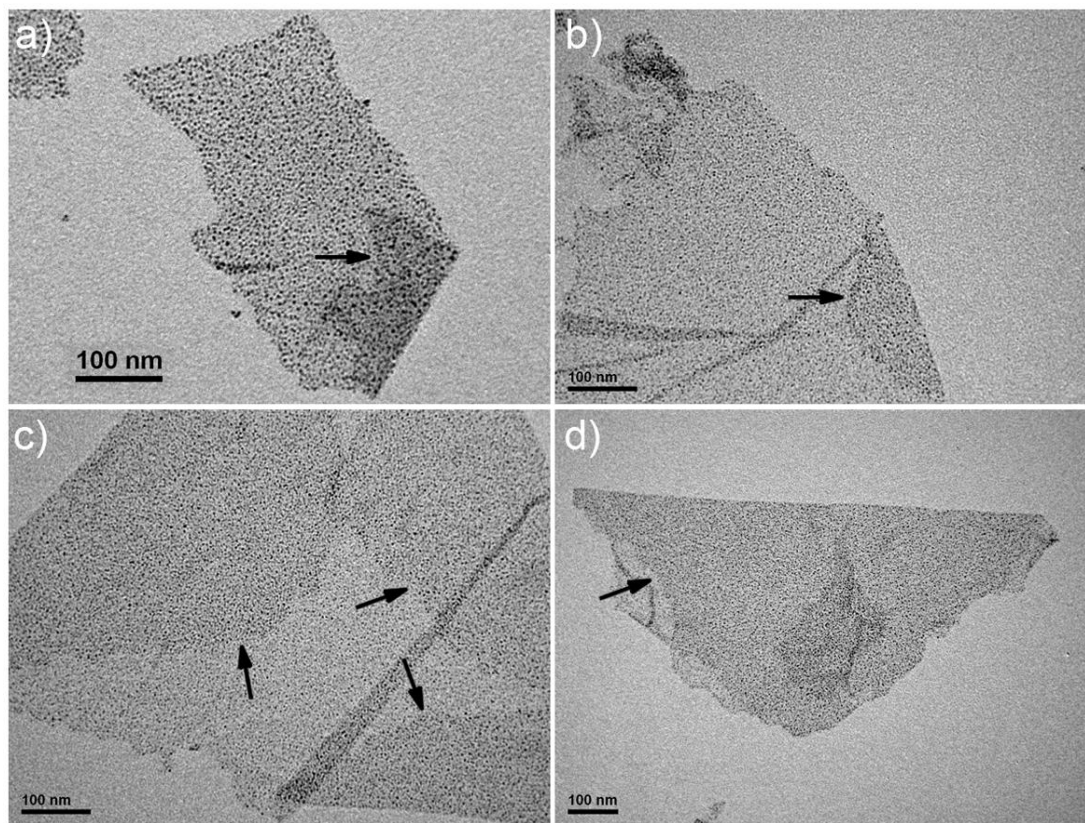
Corresponding author: hzchen@zju.edu.cn (Hongzheng Chen)



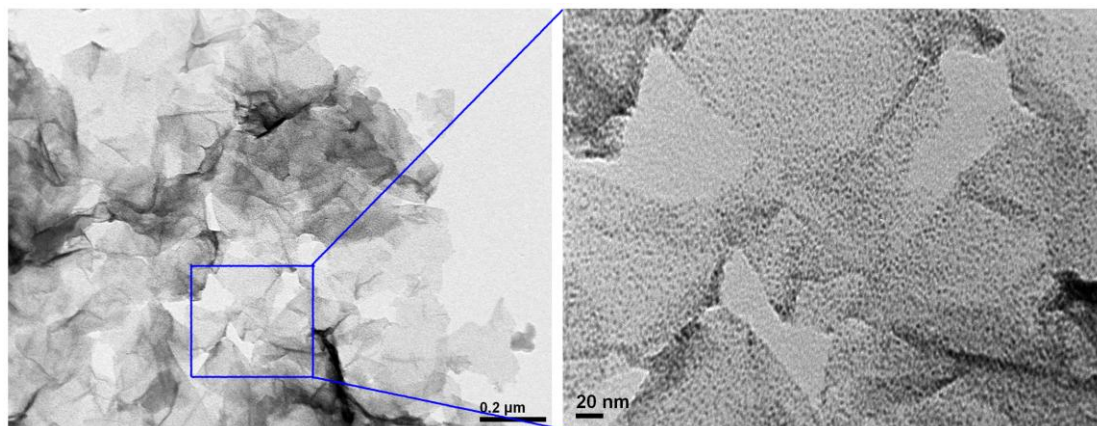
**Fig. S1** TEM image of graphene oxide (GO).



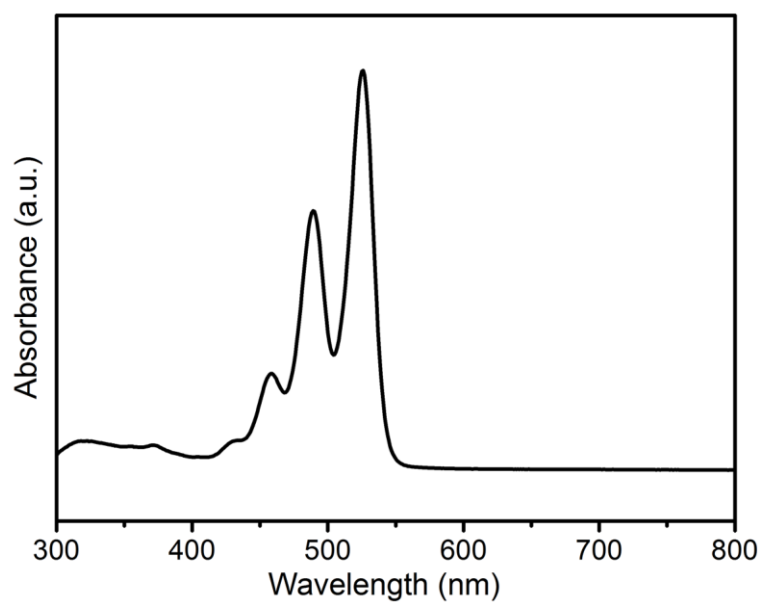
**Fig. S2** TEM image of RGO-ETPTCDI.



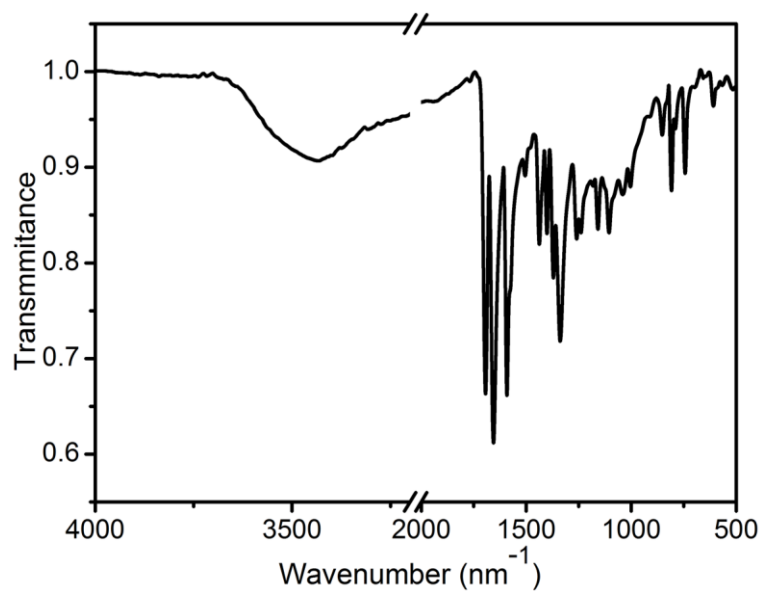
**Fig. S3** TEM images of RGO-ETPTCDI-GND. The images might suggest that decoration of Au nanodots on both sides of RGO, which sounds reasonable by considering the equivalent two-face of a graphene basal plane if the EPTCDI molecules on each side do not repulse the counterparts on the other side.



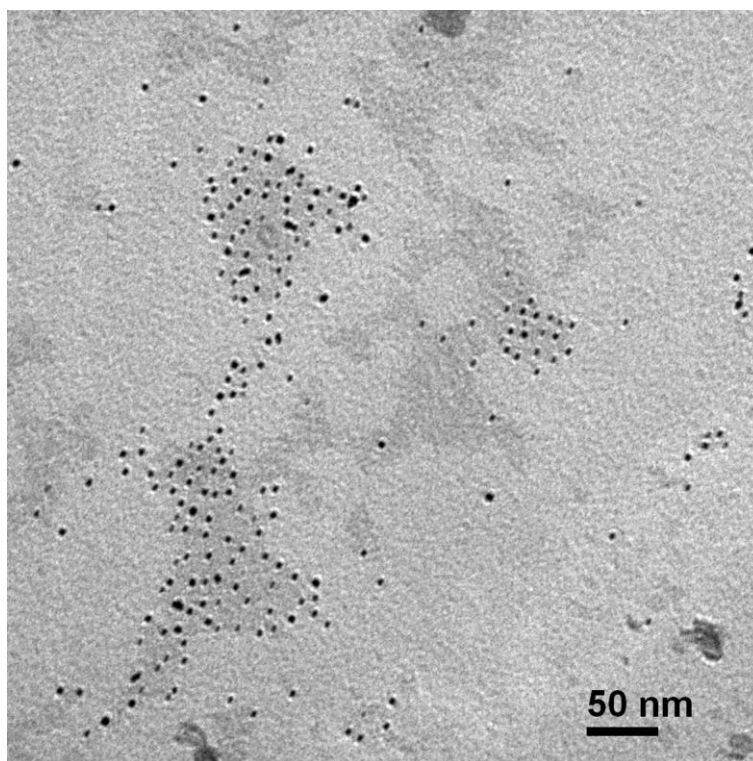
**Fig. S4** TEM images of RGO-ETPTCDI-GND in the absence of MA during Au decoration, showing aggregation of the sheets and uniform distribution of GNDs on the sheets. The results mean that GND cross-linked RGO aggregates are formed in the absence of MA on one hand, and that MA will not affect the uniform decoration of GNDs on the sheet on the other hand because uniform GNDs on RGO-ETPTCDI sheet are always produced both in absence and presence of MA.



**Fig. S5** UV-Vis spectrum of ETPTCDI.



**Fig. S6** FTIR spectrum of ETPTCDI.



**Fig. S7** TEM image of Au nanodots. No aggregation/agglomeration is observed.