

Electronic Supplementary Information for

**Thermo-sensitive graphene supported gold nanocatalyst:
synthesis, characterizations and catalytic performances**

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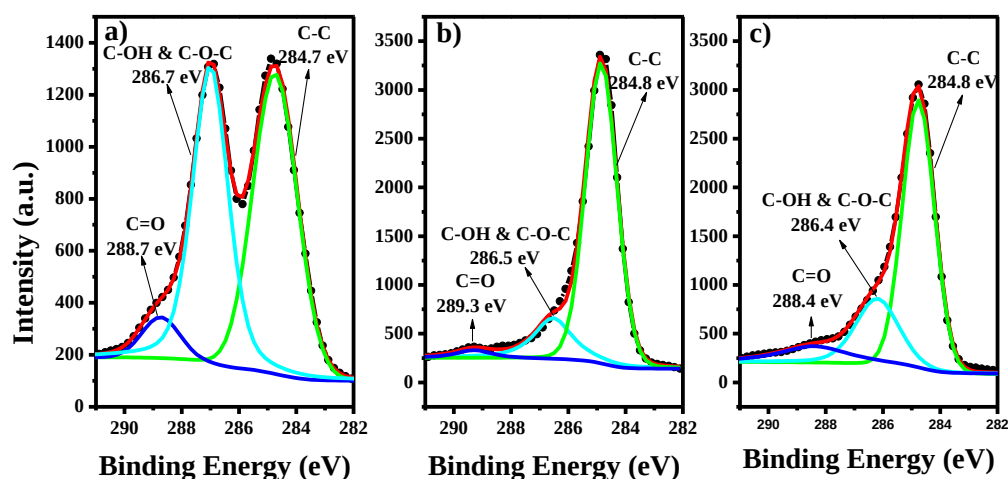


Fig. 1S C_{1s} XPS spectra of GO (a), GO-DTM (b) and GO-NIPAAm (c).

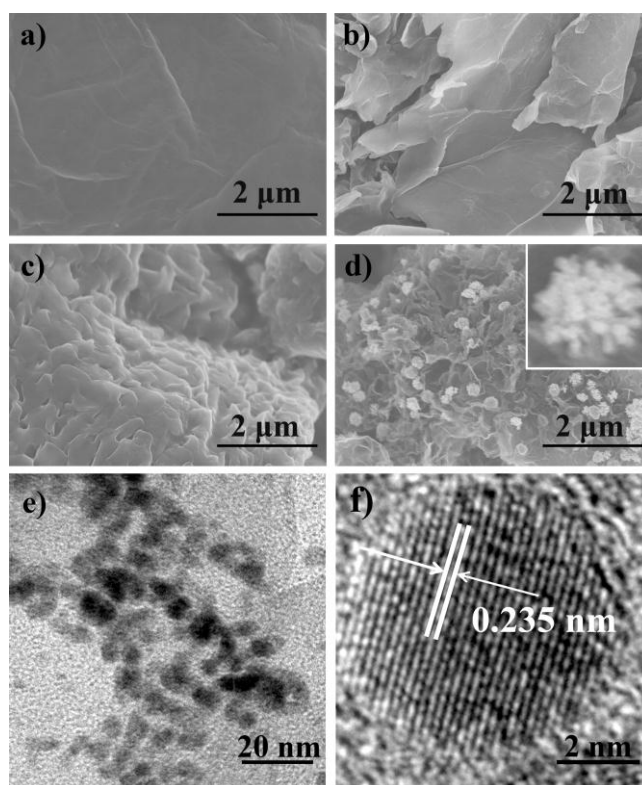


Fig. 2S the SEM images of graphene-oxide (a); GO-DTM (b); GO-NIPAAm (c) and GO-NIPAAm-Au (d), and the TEM images of GO-NIPAAm-Au composite (e) and Au molecular (f).

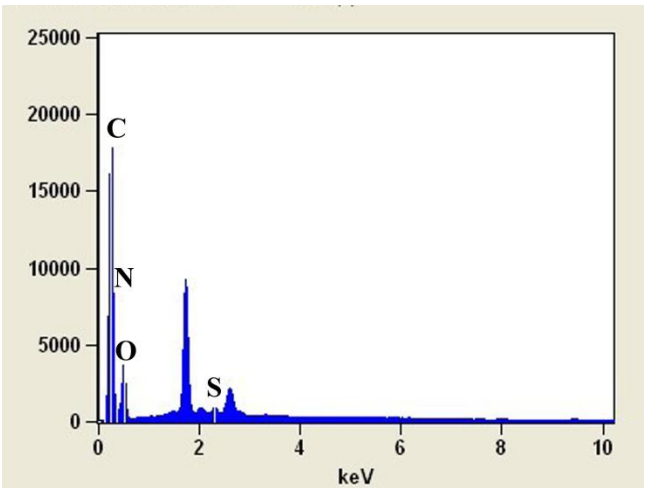


Fig. 3S: The EDS spectrum of the GO-NIPAAm.