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Supplementary Information

Deposition of Co_3O_4 nanoparticles onto the exfoliated graphite oxide sheets

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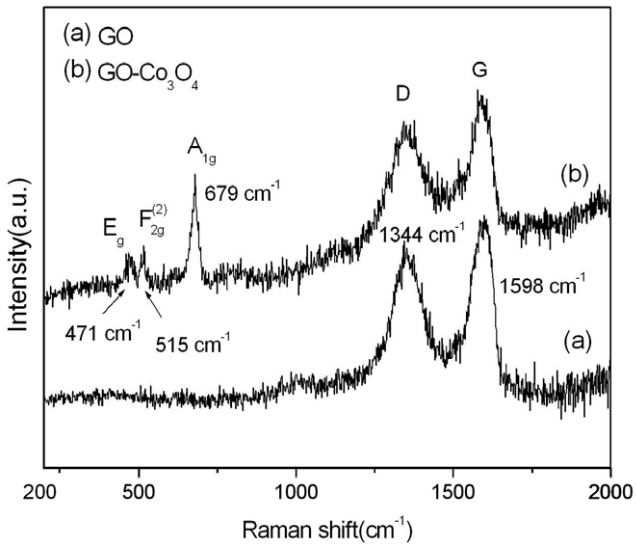

Figure 1S Raman spectra of (a) GO and (b) the GO-Co_3O_4 NPs nanocomposite

Figure 1S shows the Raman spectra of GO and the GO-Co_3O_4 NPs. In the Figure 1S(a), two prominent peaks of GO appearing at around 1344 and 1598 cm $^{-1}$ are attributed to the D and G bands, respectively. In the spectrum of GO-Co_3O_4 NPs, the D and G bands of GO still exist, while the band at 679 cm $^{-1}$ is attributed to the characteristics of the octahedral sites (CoO_6), which are assigned to the A_{1g} species in the O_h^7 spectroscopic symmetry. In addition, the Raman bands with medium intensity located at 471 and 515 cm $^{-1}$ have the E_g and $F_{2g}^{(2)}$ symmetry, respectively.

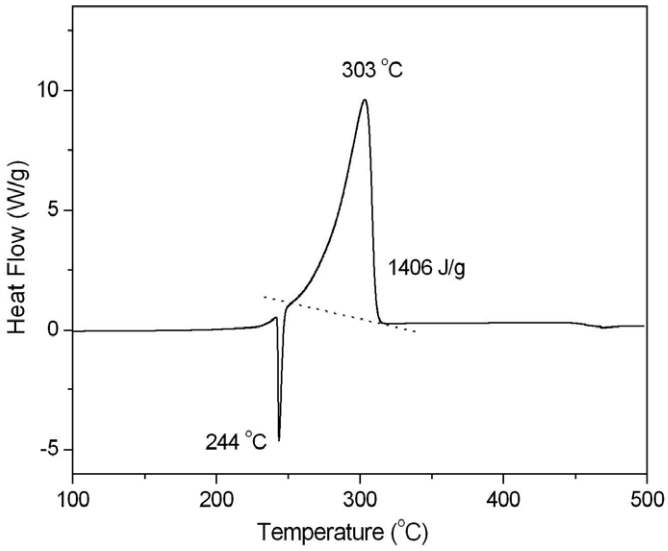

Figure 2S DSC curves for the decomposition of AP with 2% Co_3O_4-GO composite assembled with mechanical stirring.