

## Electronic Supplementary Information

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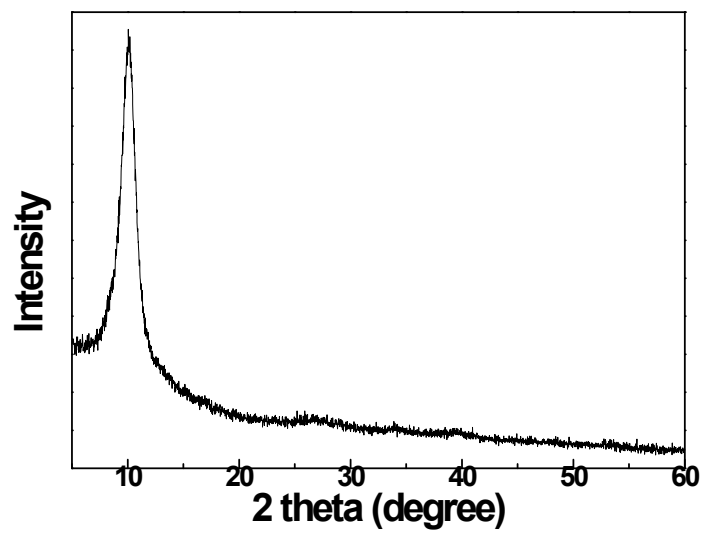
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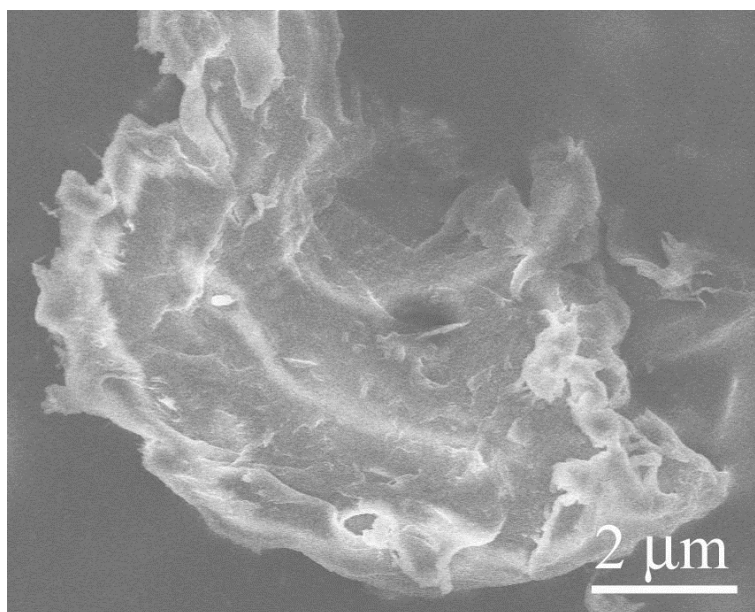
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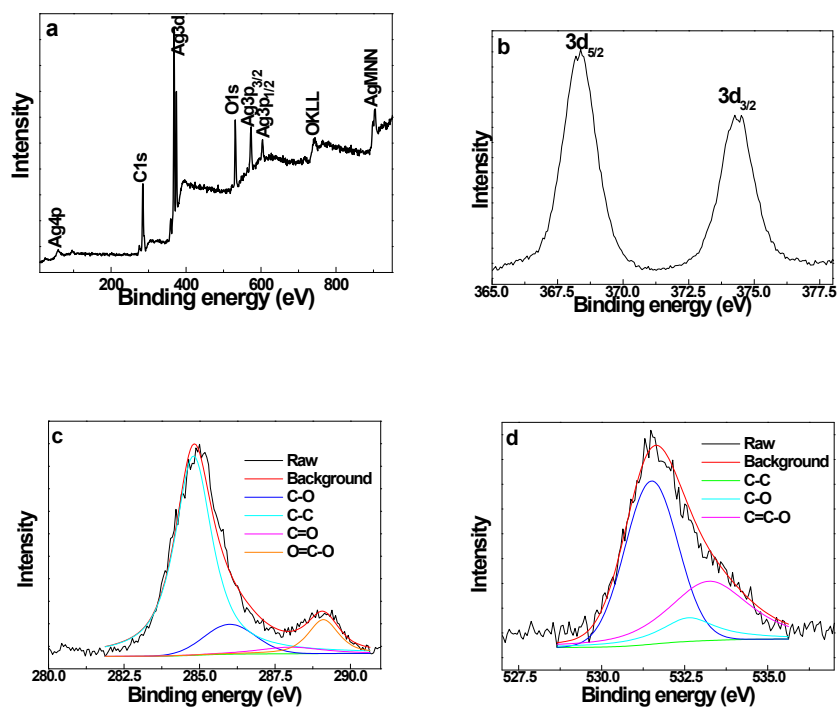
Tel: 0086-710-3592609, Email: [dgp2000@126.com](mailto:dgp2000@126.com)



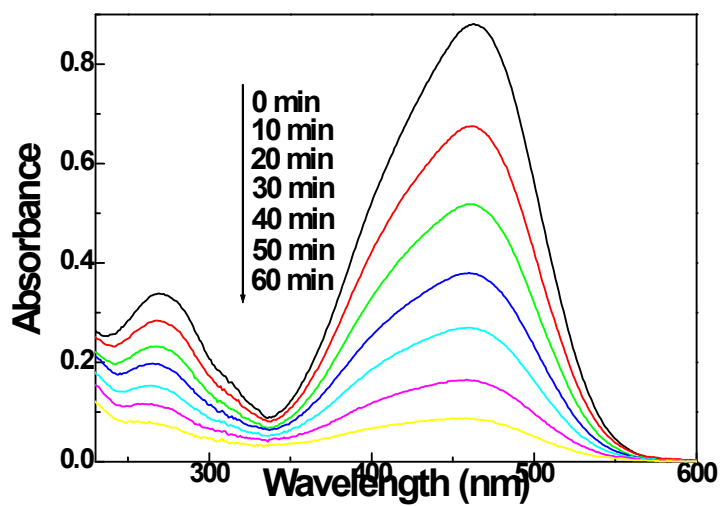
**Fig. S1** XRD pattern of reduced graphene oxide



**Fig. S2** SEM image of reduced graphene oxide.



**Fig. S3** XPS spectra of (a) survey, (b) Ag 3d, (c) C 1s and (d) O 1s in  $\text{Ag}_2\text{CO}_3/2$  wt% RGO.



**Fig. S4** Absorption changes of methyl orange aqueous solution in the presence of  $\text{Ag}_2\text{CO}_3/2$  wt% RGO sample under visible light irradiation.