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Supplementary information

1. SEM images

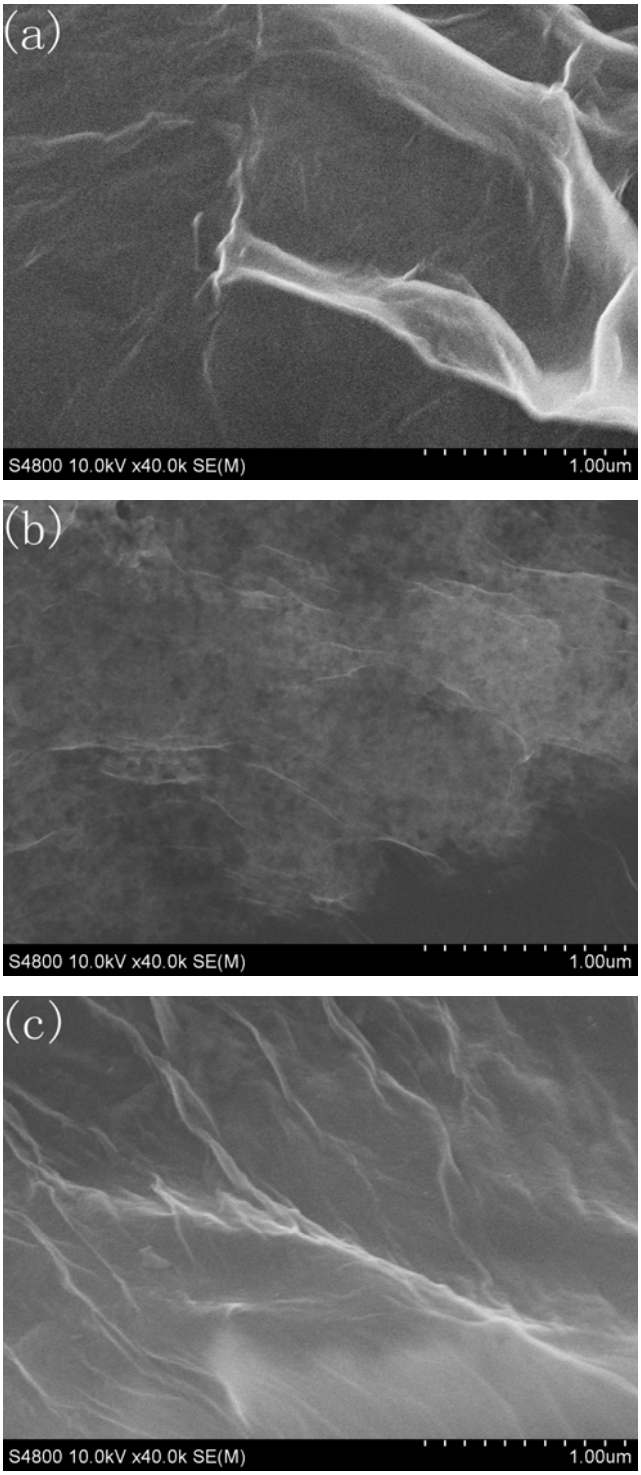

Figure S1. SEM images of GO (a), RGO (b) and N-doped RGO (c).

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2. TGA measurements: Thermo-gravimetric analysis (TGA) was conducted using a Perkin Elmer Diamond TG/DTA instrument. Samples (5-10 mg) were heated in air up to 800 °C at a rate of 10 ° C/min.

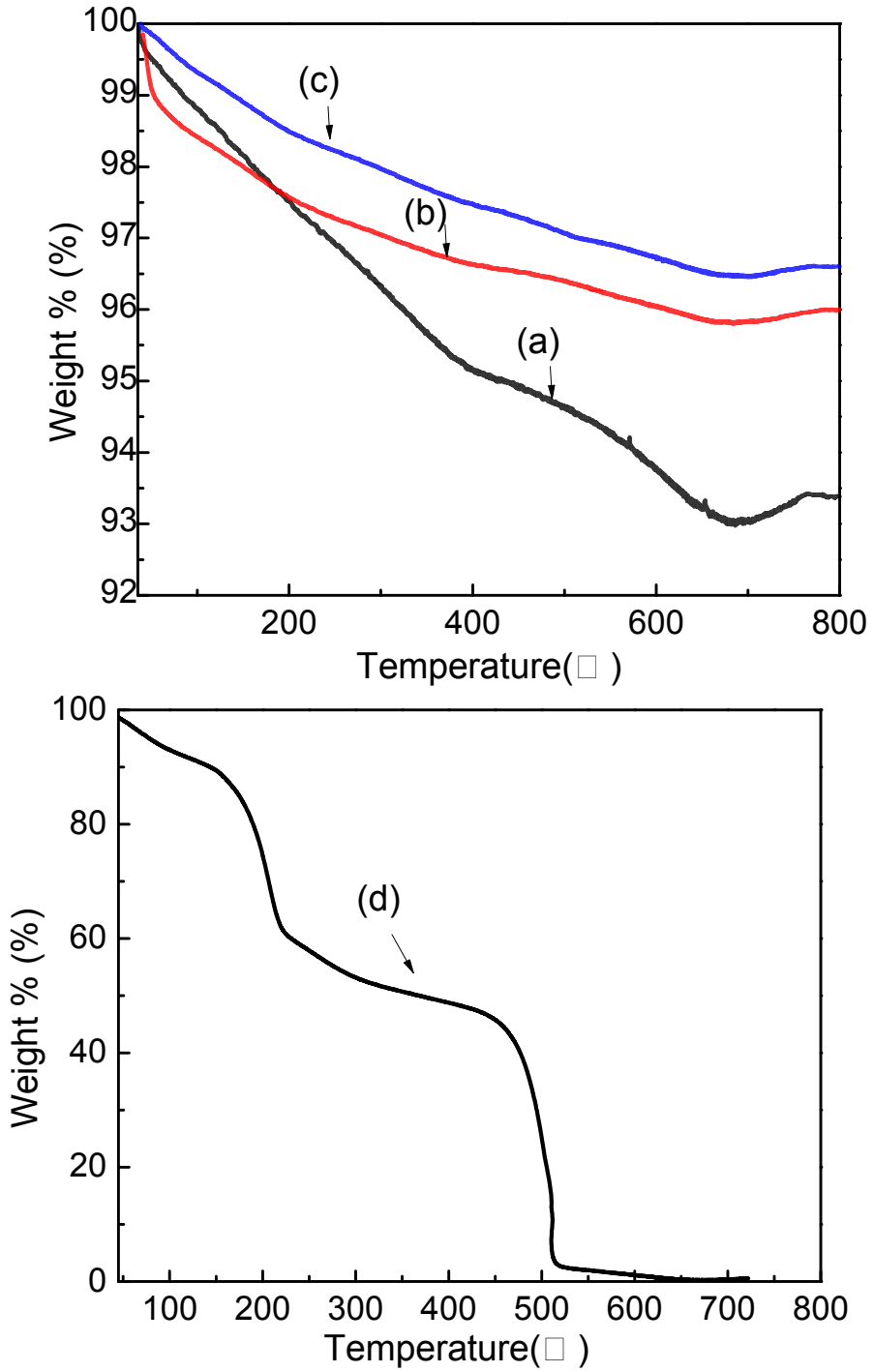

Figure S2. TGA curves of N-P90-600 (a), N-P90/RGO-600 (b), N-P90/N-RGO-600 (c) and RGO-600 (d).

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3. Comparison of photocatalytic performance

Table S1. Comparison of photocatalytic performance between samples in this work and those reported in the previous study

This work	Photocatalyst	C/C_0 at 80 min.	C/C_0 at 100 min.
	P90	86%	81%
	N-P90/RGO-600	46%	43%
	N-P90/N-RGO-600	43%	34%
Zhang et al.*	Photocatalyst	C/C_0 at 70 min.	C/C_0 at 90 min.
	P25	75%	71%
	P25-0.5%GR	59%	54%
	P25-5%GR (the best)	41%	34%

*Yanhui Zhang, Zi-Rong Tang, Xianzhi Fu, and Yi-Jun Xu, *ACS Nano*, **2010**, 4, 7303–7314. Experimental details of photodegradation: In a typical process, a 20 mg portion of catalyst was suspended in 160 mL of 10 ppm MB solution. Before irradiation, the suspensions were stirred in the dark for 4 h to ensure the establishment of adsorption-desorption equilibrium. A 500W Xe arc lamp equipped with a UV cutoff filter (λ> 400 nm) was used as light source. A 3 mL sample solution was taken at a certain time interval during the experiment and centrifuged to remove the catalyst completely.