

SUPPLEMENTARY INFORMATION

<i>Oxidation Time (h)</i>	<i>Position of main peak of XRD (°)</i>	<i>FWHM of main peak of XRD (°)</i>
0 (As-prepared)	27.5044(7)	1.120(3)
1	27.5600(7)	1.027(3)
3	27.5707(7)	1.002(3)
5	27.6128(7)	0.917(3)
7	27.6547(7)	0.852(3)
9	27.6584(7)	0.859(3)

Table 1: position of the main peak of the XRD patterns and relative FWHM for the $g\text{-C}_3\text{N}_4$ as a function of the oxidation treatment.

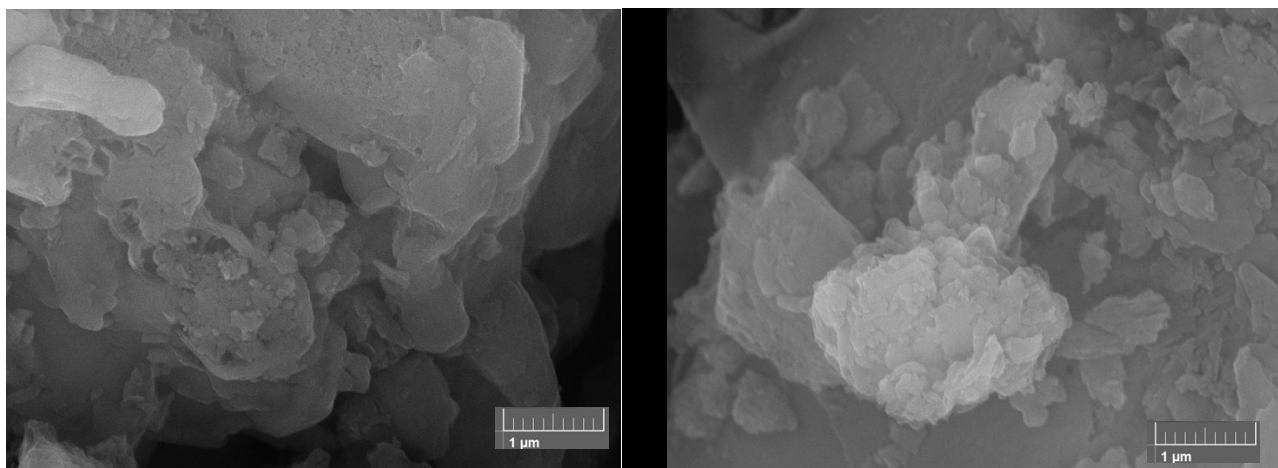


Fig. 2 Selected SEM images of as-prepared $g\text{-C}_3\text{N}_4$ sample and for the sample treated in nitric acid for 1 h (left) and 3 h (right).

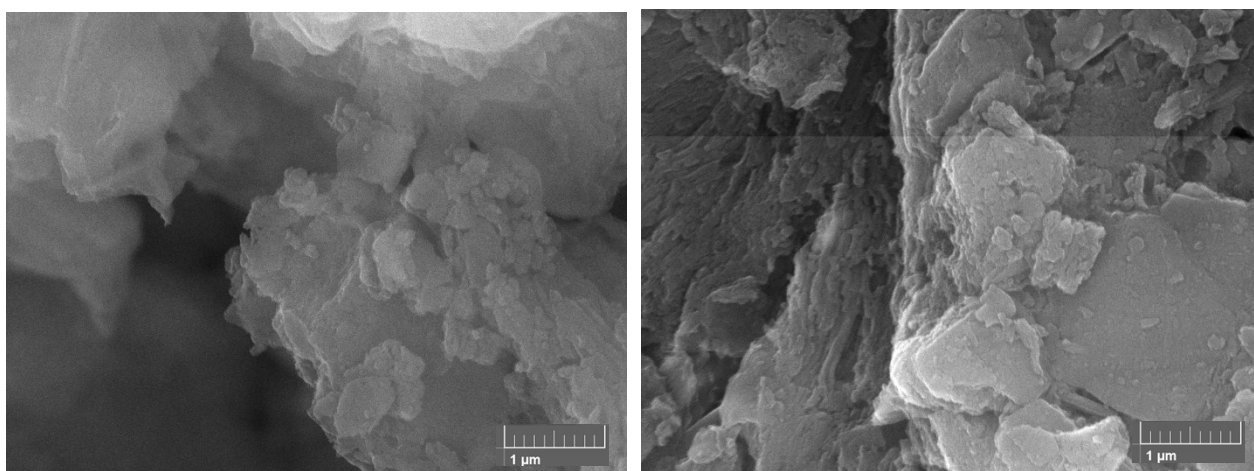
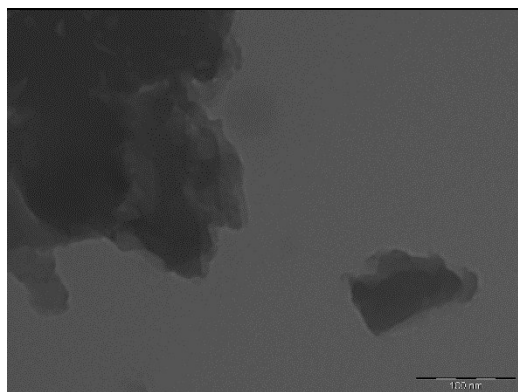
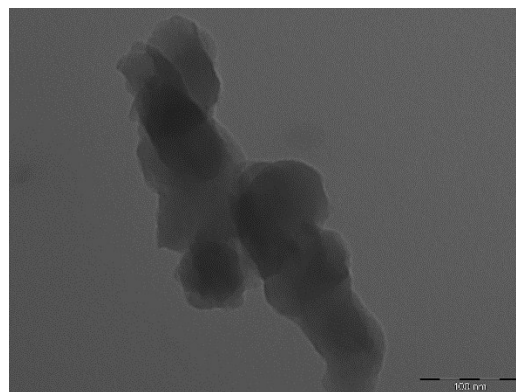


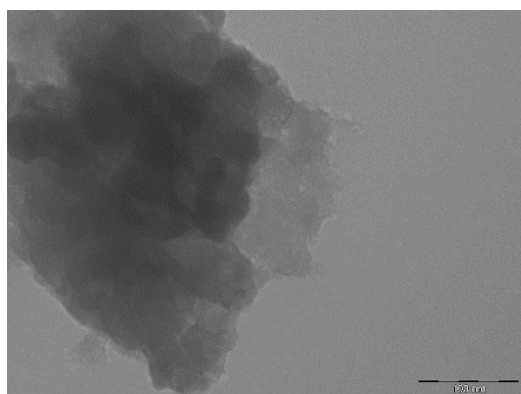
Fig. 3 Selected SEM images of as-prepared $g\text{-C}_3\text{N}_4$ sample and for the sample treated in nitric acid for 5 h (left) and 7 h (right).



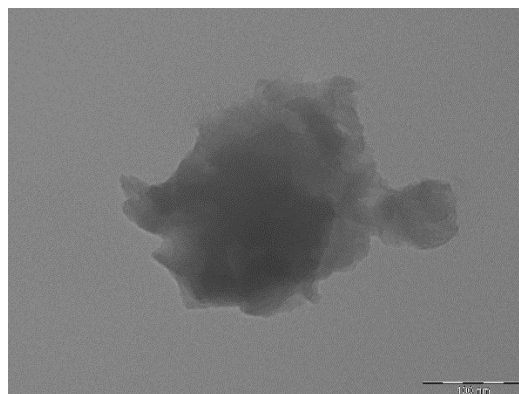
As-prepared



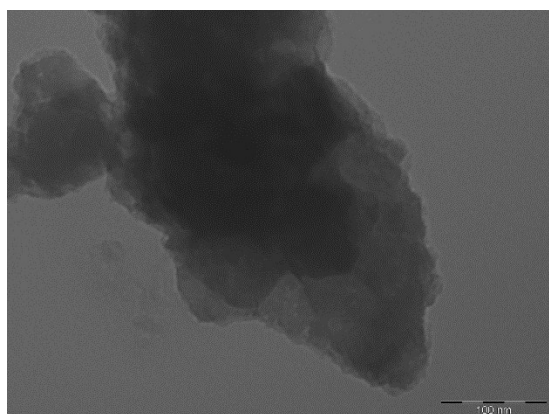
1 h



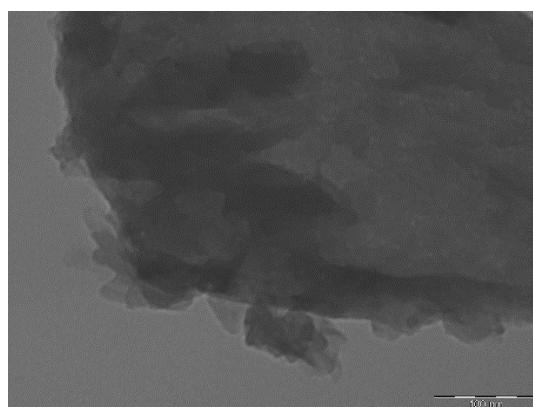
3 h



5 h



7 h



9 h

Fig. 3 Selected TEM images of as-prepared g-C₃N₄ sample and for the sample treated in nitric acid for 1, 3, 5, 7 and 9 h (at 250kX).

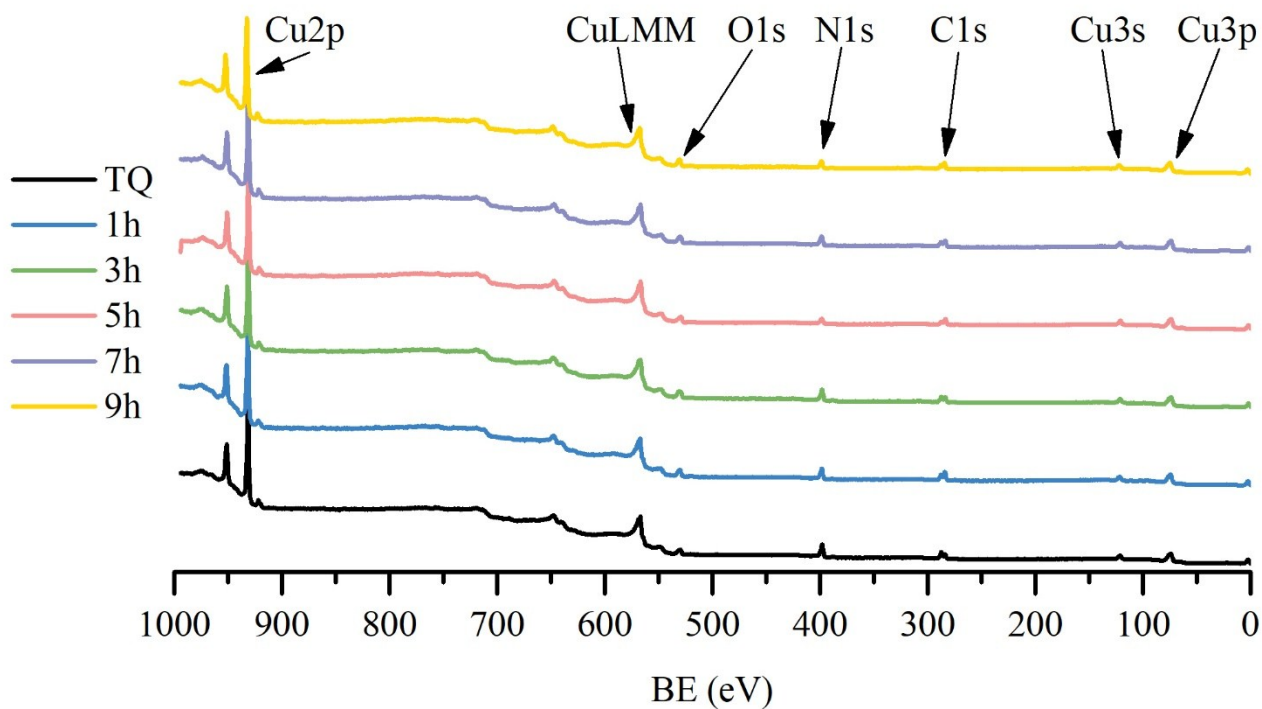


Fig. 5: surveys spectra for each samples.

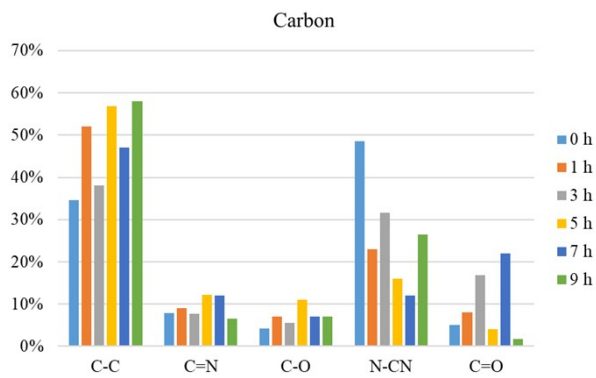


Fig. 6: carbon peak analysis of XPS data.

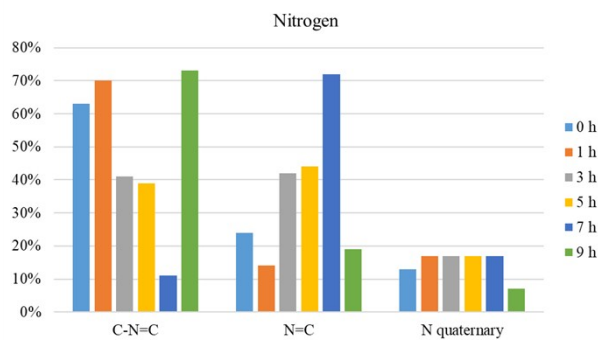


Fig. 7: nitrogen peak analysis of XPS data.

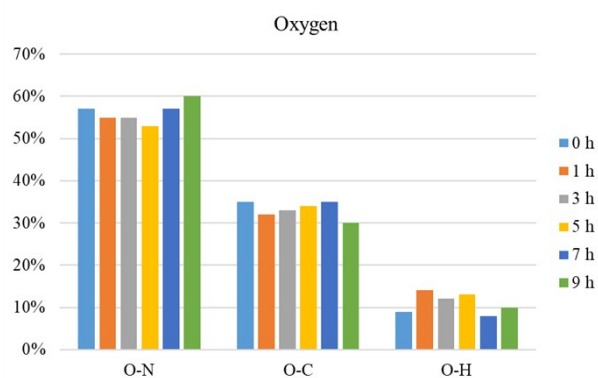


Fig. 8: oxygen peak analysis of XPS data.

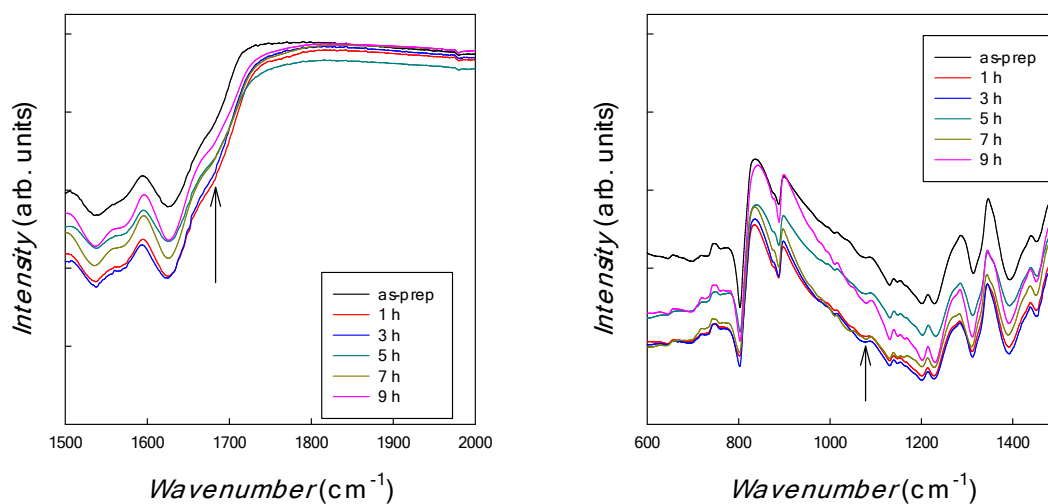


Fig. 9 Details of the FT-IR spectra for the $g\text{-C}_3\text{N}_4$ samples as a function of nitric acid treatment discussed in the paper.