Electronic Supplementary Material (ESI) for RSC Advances.

Iron and nitrogen co-functionalized porous 3D graphene framework as an efficient oxygen reduction catalyst

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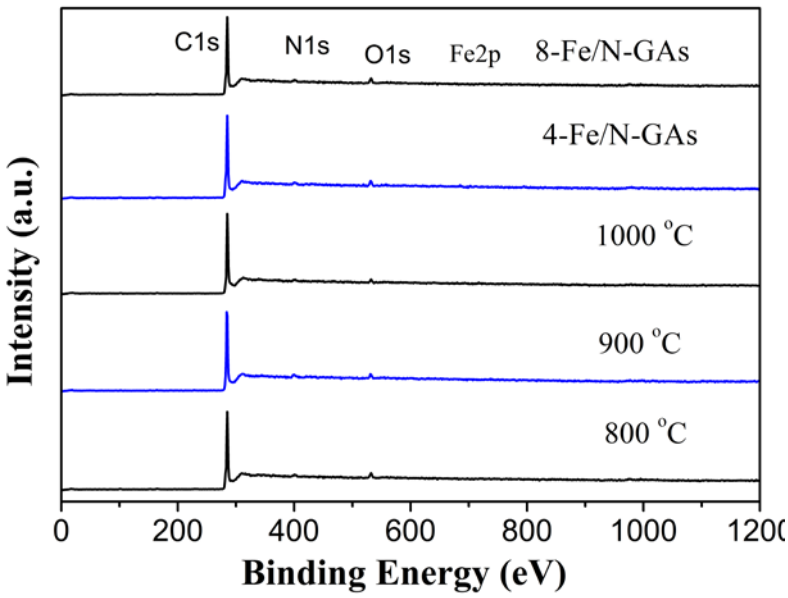

Fig. S1 XPS survey of different samples.

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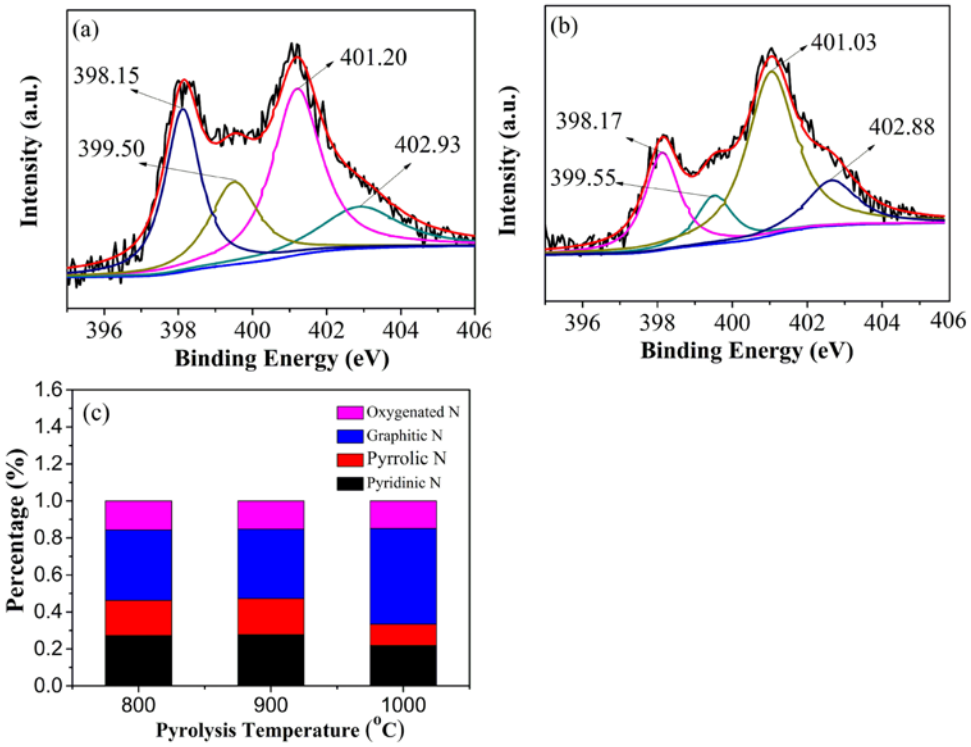

Fig. S2 High resolution XPS N1s spectrum of N-GAs 800 (a), N-GAs 900 (b) and percentage variation of nitrogen functionalities N-GAs pyrolyzed at different temperature (c).

Table S1 Electrochemical parameters of samples for ORR estimated from LSV at 1600 rpm.

Samples	E_{onest} (V)	$E_{1/2}$ (V)	J_L (mA cm^{-2})
N-G	-0.15	-0.32	5.83
GAs@PDAP	-0.22	-0.38	2.60
GAs	-0.09	-0.29	5.40
N-GAs	-0.05	-0.22	6.36
4-Fe/N-GAs	-0.04	-0.21	6.65
8-Fe/N-GAs	0	-0.17	4.30
Pt/C	0.03	-0.14	5.82

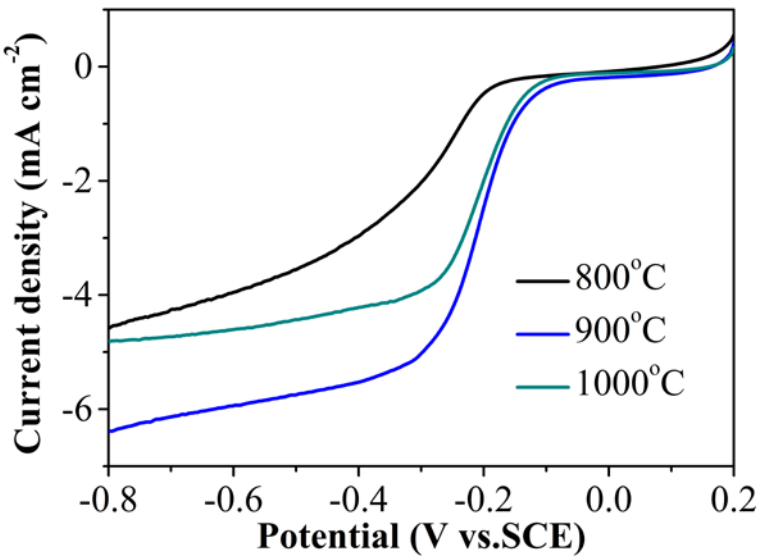

Fig. S3 LSV curves of N-GAs pyrolyzed at different temperature at 1600 rpm in 0.1 M KOH saturated with O_2 at the scan rate of 10 mV s^{-1}.