Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary information

Synthesis of heteroatom-carbon nanosheets by solution plasma processing using *N*-methyl-2-pyrrolidone as precursor

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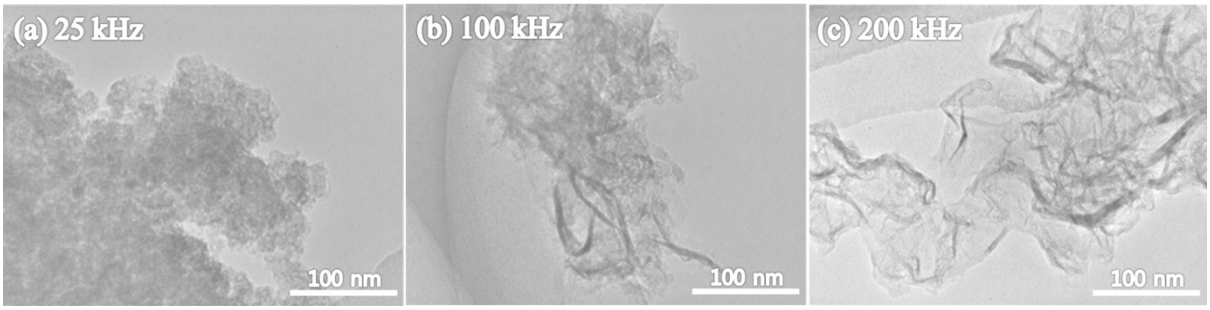

Fig. S1 TEM images of the transition from carbon nanoparticles to carbon nanosheets by increasing the repetition frequency rate: (a) 25 kHz, (b) 100 kHz and (c) 200 kHz.

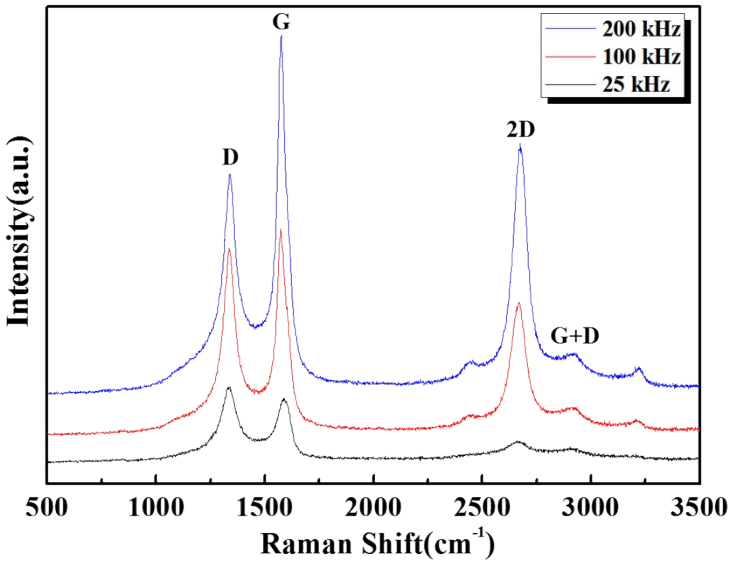

Fig. S2 Raman spectra of the samples prepared at 25, 100 and 200 kHz.

Table S1 Comparison the NCNS with N-doped graphene reported in several previous works.

Carbon material	Onset potential (V vs. Ag/AgCl)	Nitrogen content (at%)	Surface area ($m^2 g^{-1}$)	Ref.
N-doped double-layer templated graphene	–0.130	3.02	1318	[61]
N-doped graphene	–0.135	20.50	748	[62]
N-doped graphene nanoplatelets	–0.170	3.27	-	[63]
NCNS	–0.170	1.30	277	Present work