Supporting information

2D quasi-ordered nitrogen and sulfur co-doped carbon materials from ionic liquid as metal-free electrocatalysts for ORR

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Table S1. Characteristics of nitrogen doped carbons from ILs.				
ILs	T of decomposition [^{o}C]	Carbonization yield[%][a]	Carbonization yield [%][b]	Adenine percentage [%][c]
A	290	0	-	100
A+HNTf$_2$	306.9	24.5	21.5	24.6
[a]TG yield at 500 ^{o}C. [b]Oven yield. [c]Theoretical value of adenine wt% for respective precursors.				

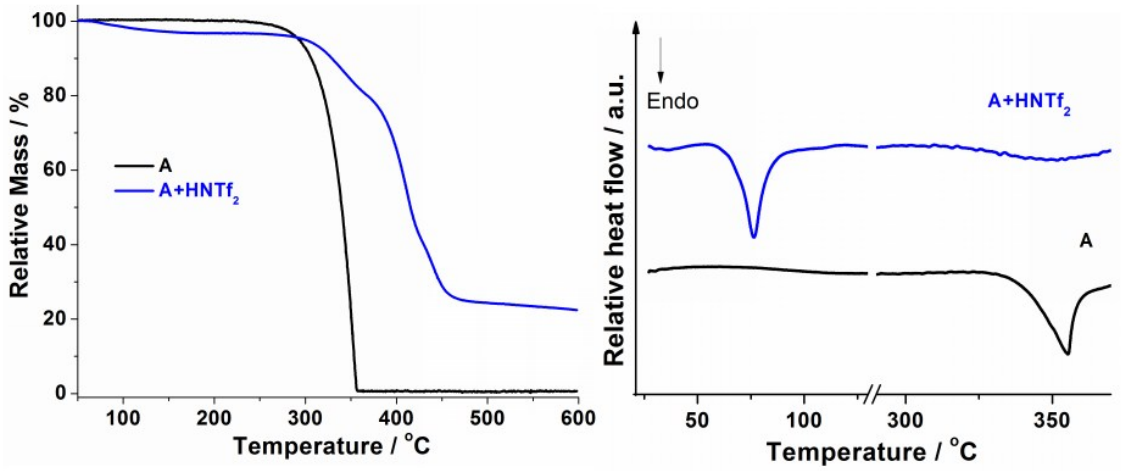

Figure S1. TGA and DSC profiles of adenine and adenine-based ionic liquids under flowing argon with a ramp rate of 5 ^{o}C min^{-1}.

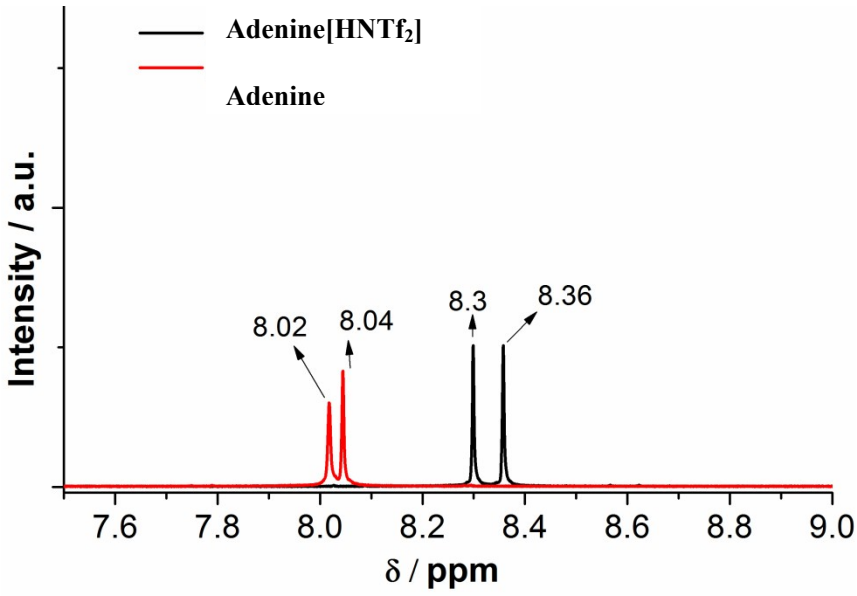

Figure S2. HNMR spectra of adenine and adenine[$HNTf_2$] precursors.

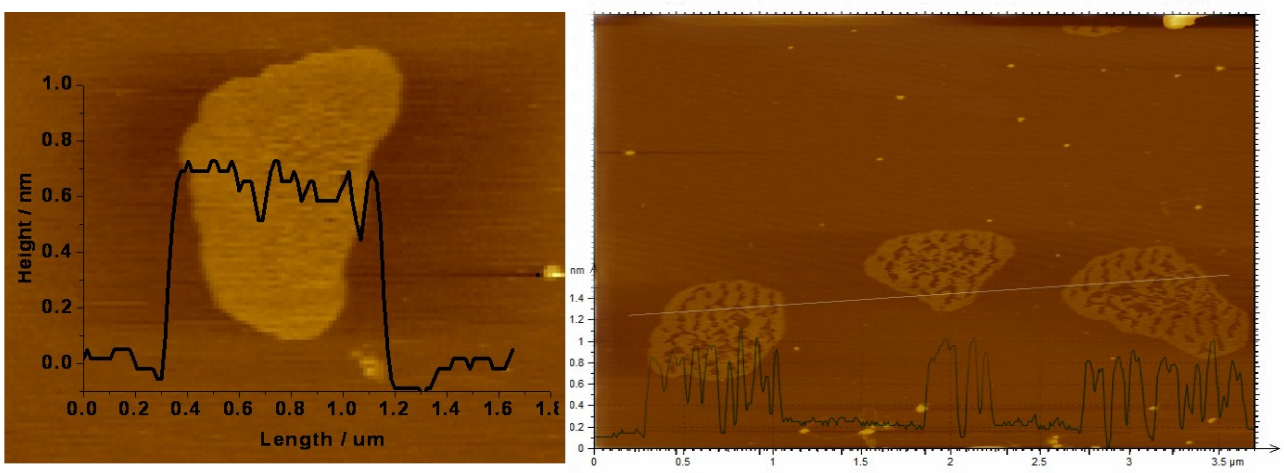

Figure S3. AFM image of the ionothermal carbon from A+$HNTf_2$.

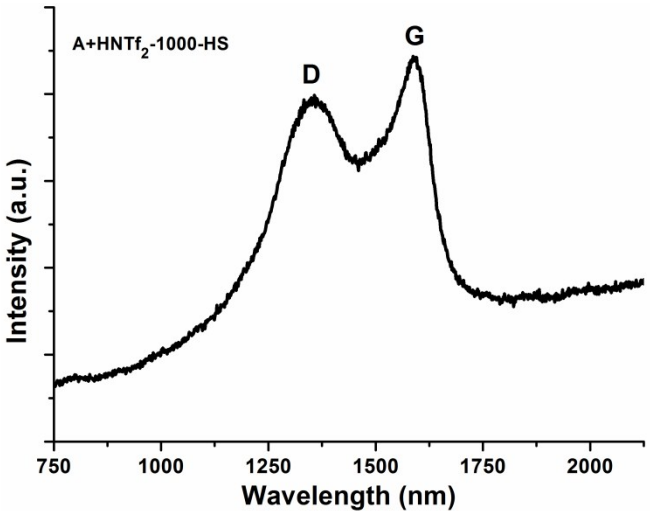

Figure S4. Raman spectrum of the ionothermal carbon from A+$HNTf_2$ carbonized at 1000 ^{o}C.