Electronic Supplementary Material (ESI) for RSC Advances.

Electronic Supplementary Information

Growth of N-doped graphene from nitrogen containing aromatic compounds: The effect of precursors on the doped site

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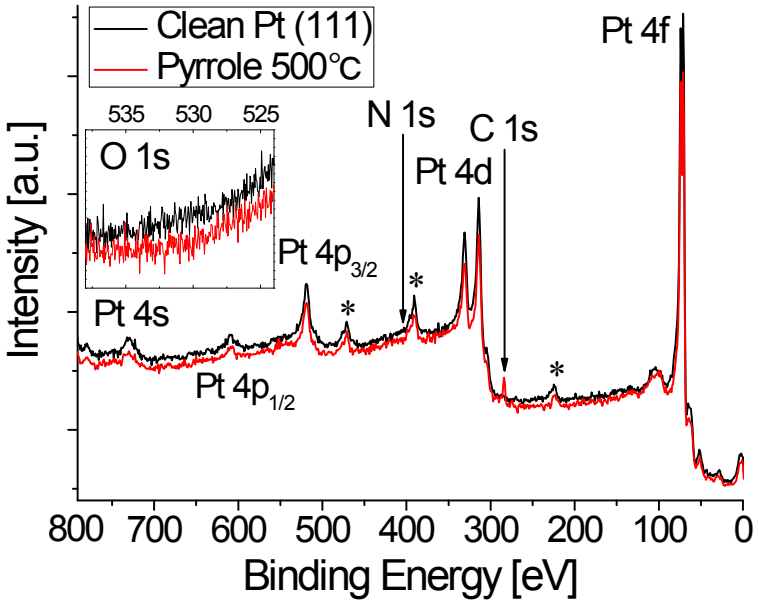

Figure S1. Wide range XPS spectra. Inset figure shows XPS O 1s region spectra. *Peaks from Ta used as a substrate holder.

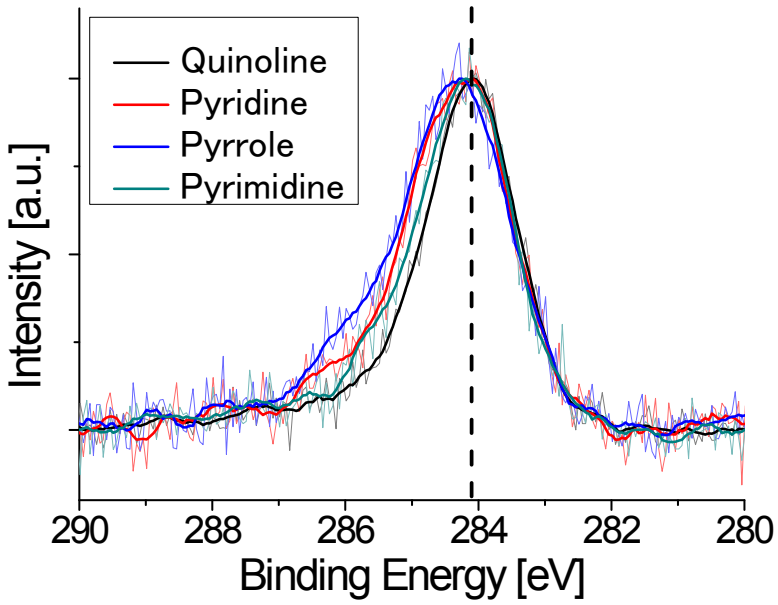

Figure S2. XPS C 1s region spectra of the graphenes synthesized at 500 °C. The dashed line at 284.1 eV is attributed to the sp^2 carbon of graphene.

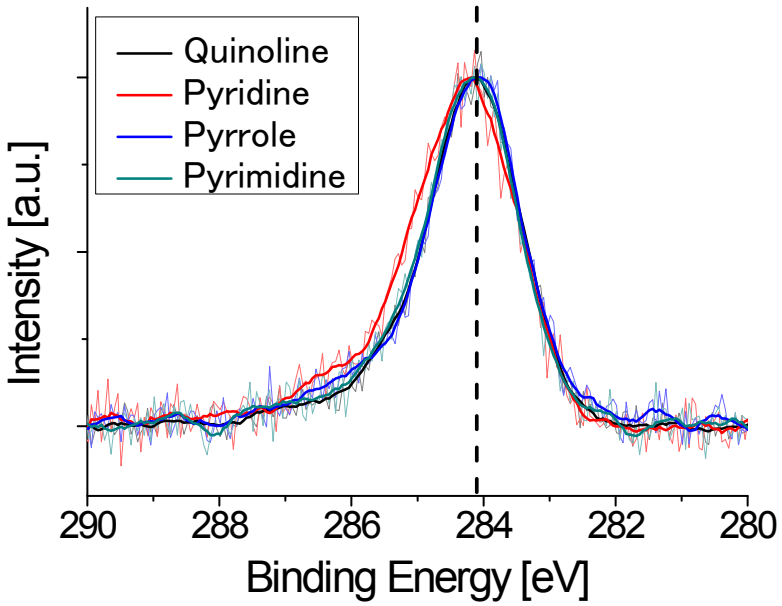

Figure S3. XPS C 1s region spectra of the graphenes synthesized at 600 °C. The dashed line at 284.1 eV is attributed to the sp^2 carbon of graphene.

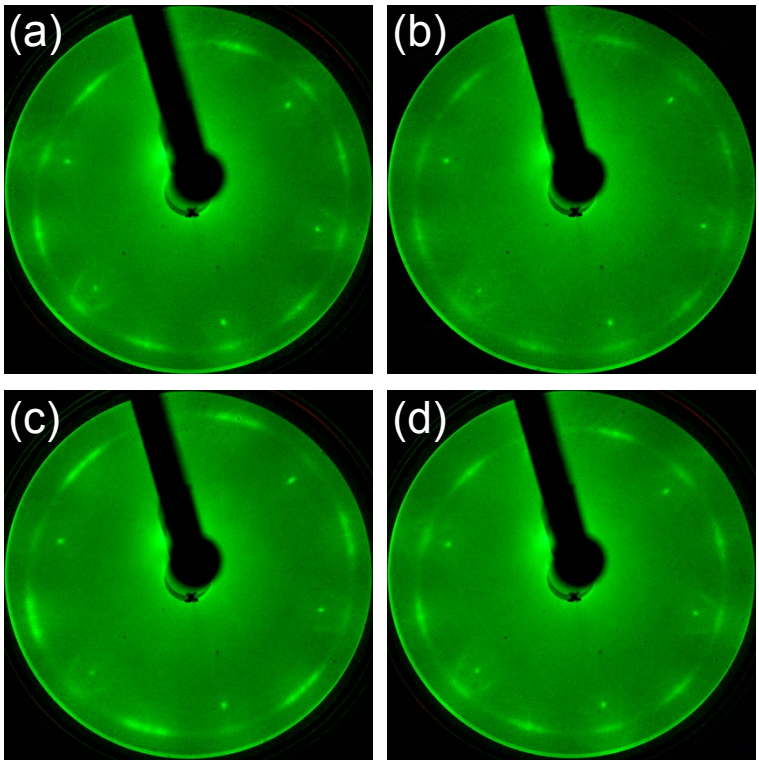

Figure S4. LEED patterns of the graphenes synthesized at 600 °C from (a) quinoline (b) pyridine (c) pyrrole (d) pyrimidine.

DFT Calculation

DFT calculations were performed to optimize the structure of the source molecules with Gaussian 09 program package. We employed the restricted B3LYP with 6-31G(d,p) basis set. All the calculations were done with Fujitsu PRIMERGY CX250S1 in Research Center for Computational Science