

## Electronic Supplementary Information

A novel acid-driven, microwave-assisted, one-pot strategy toward  
rapid production of graphitic N-doped carbon  
nanoparticles-decorated carbon flakes from *N,N*-dimethylformamide  
and their application in removal of dye from water

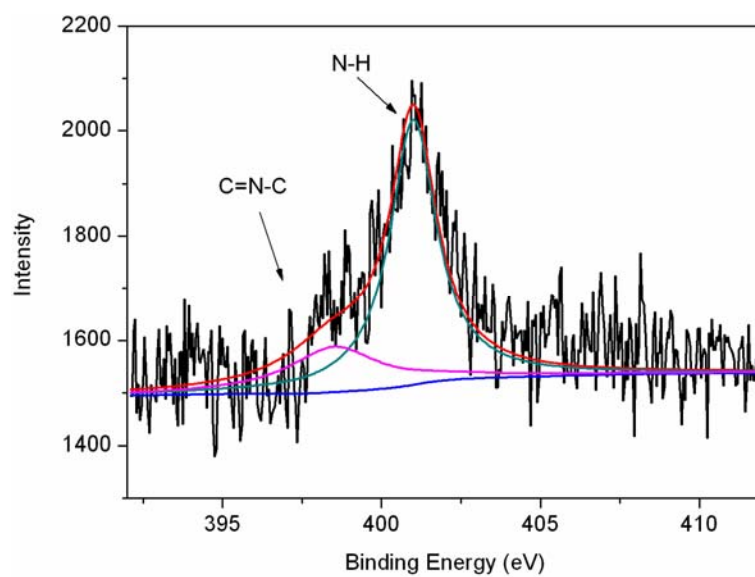
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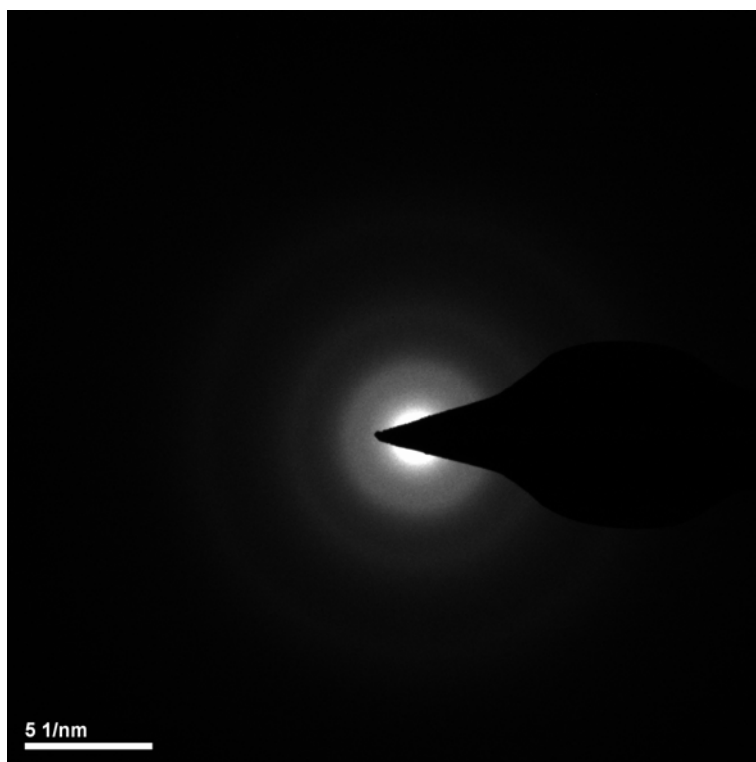
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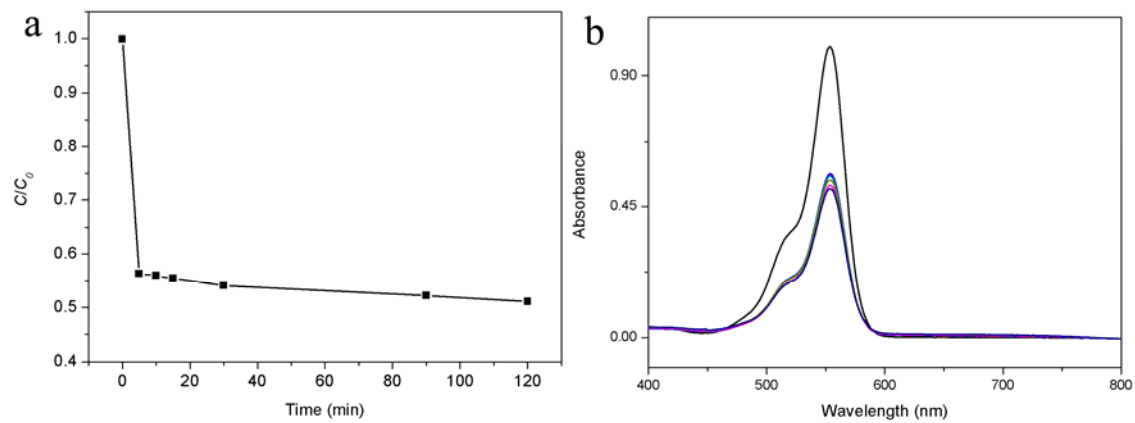
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**Fig. S1** N1s spectrum of N-CNP-CFs.



**Fig. S2** The electron diffraction pattern of N-CNP-CFs.



**Fig. S3** (a) The  $C/C_0$  versus time plots and (b) the UV-vis spectra for adsorption of RhB solution by N-CNPs-CFs (RhB: 5 mg/L; N-CNPs-CFs: 100 mg/L).

**Table S1** A comparison of this work with literature work regarding the performance of adsorption of RhB using graphene oxide (GO) and activated carbon (AC).

| Sample            | C <sub>RhB</sub> (mg/L) | C <sub>adsorbent</sub> (mg/L) | Time    | Capacity (mg/g) | reference |
|-------------------|-------------------------|-------------------------------|---------|-----------------|-----------|
| GO                | 5                       | 100                           | 180 min | 29              | 1         |
| N-CNPs-CFs        | 5                       | 350                           | 60 min  | 13.7            | This work |
| AC treated by KOH | 200                     | 1000                          | 5 hour  | 21.5            | 2         |

**References:**

1. C. K. Ramesha, A. V. Kumara, H. B. Muralidhara and S. Sampath, *J. Colloid Interf. Sci.*, 2011, **361**, 270.
2. H. M. H. Gad and A. A. Ei-Sayed, *J. Hazard. Mater.*, 2009, **168**, 1070.