

Supporting Information for **New Journal of Chemistry** publication  
entitled

**Hexamethylenetetramine: An effective and universal  
nitrogen-doping reagent to enhance the photoluminescence of  
carbon nanodots**

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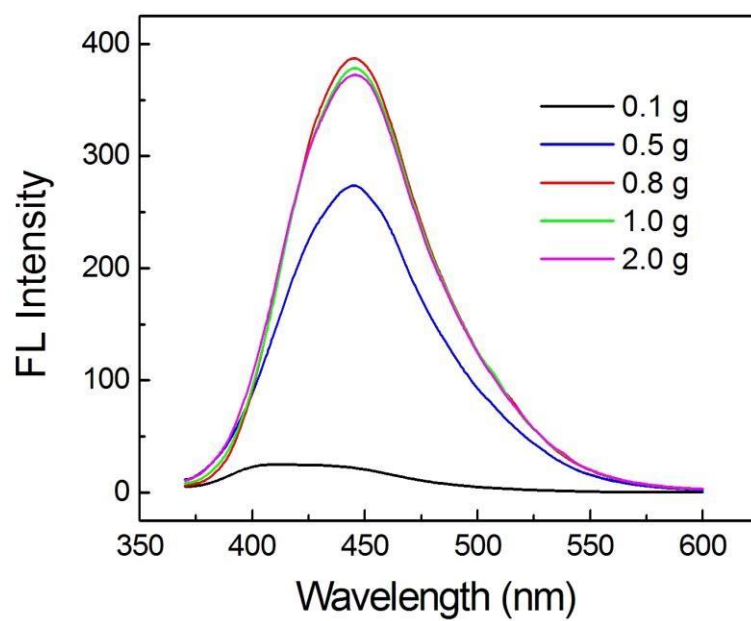
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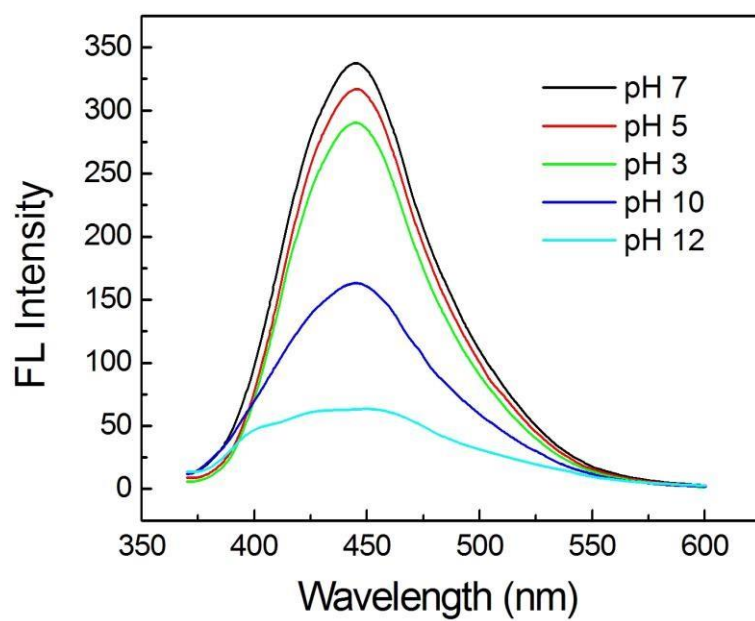
**Table S1** Comparisons of previously reported methods with the present method for N-CDs synthesis.

Method	Carbon source	Nitrogen-doping reagent	QY (%)	Reference
Microwave	Citric acid	Urea	14	[19]
Hydrothermal	Citric acid	Dicyandiamide	36.5	[20]
Hydrothermal	Citric acid	Melamine	42	[21]
Hydrothermal	Glutaraldehyde	Melamine	31	[22]
Hydrothermal	Alanine	Ethylenediamine	46.2	[23]
Hydrothermal	Citric acid	Ethylenediamine	80	[24]
Hydrothermal	Citric acid	Ethylenediamine	75.2	[25]
Hydrothermal	Bovine serum albumin*	—	11	[26]
Hydrothermal	Citric acid	Amino acid (Gly, Lys, Ser)	10.6~12.3	[27]
Hydrothermal	Acetic acid	Amino acid (Cys, His, Ser)	2.2~7.5	[28]
Hydrothermal	Citric acid	tris(hydroxymethyl)methyl aminomethane	75	[29]
Hydrothermal	Milk*	—	12	[30]
Hydrothermal	Orange juice*	—	26	[31]
Hydrothermal	Soy milk*	—	2.6	[32]
Hydrothermal	Grass*	—	6.2	[33]
Plasma	Egg*	—	8	[34]
Carbonization/etching	Hair fiber*	—	11.1	[35]
Pyrolysis/microwave	Cotton*	—	14.8	[36]
Hydrothermal	Bombyx mori silk*	—	13.9	[37]
<b>Hydrothermal</b>	<b>Citric acid</b>	<b>Hexamethylenetetramine</b>	<b>62.8</b>	<b>This work</b>

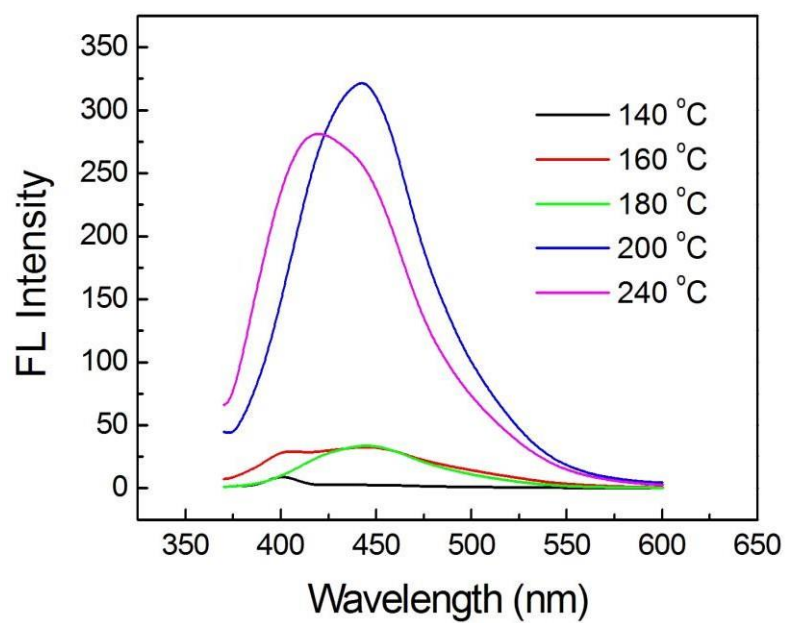
\* The material acts as both carbon source and nitrogen source.



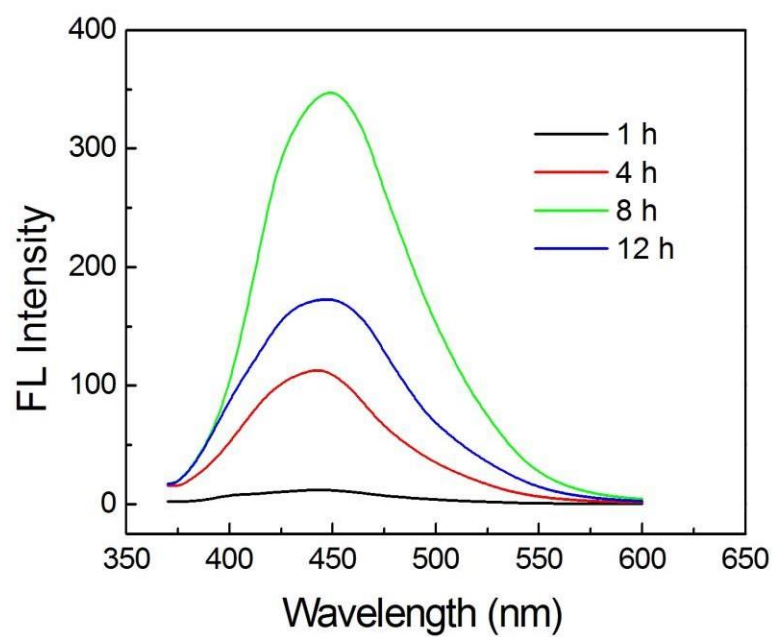
**Fig. S1** Effect of the amount of added HMTA on the synthesis of the N-CD.



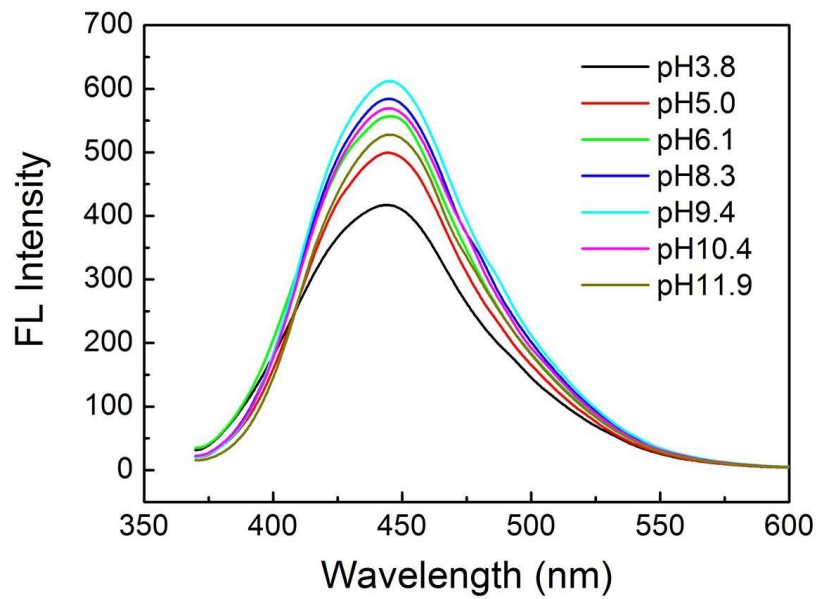
**Fig. S2** Effect of solution pH on the synthesis of the N-CD.



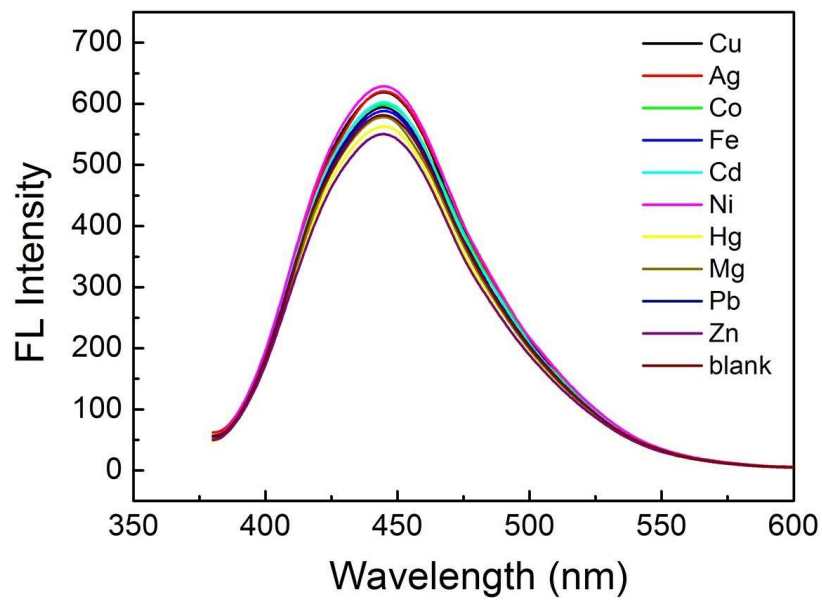
**Fig. S3** Effect of reaction temperature on the synthesis of the N-CD.



**Fig. S4** Effect of reaction time on the synthesis of the N-CD.



**Fig. S5** Effect of solution pH on the FL intensity of the as-prepared N-CDs.



**Fig. S6** Influence of different metal ions on the FL intensity of the as-prepared N-CDs.