

Sugarcane juice derived carbon dot–graphitic carbon nitride composites for bisphenol A degradation under sunlight irradiation

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Additional experimental data

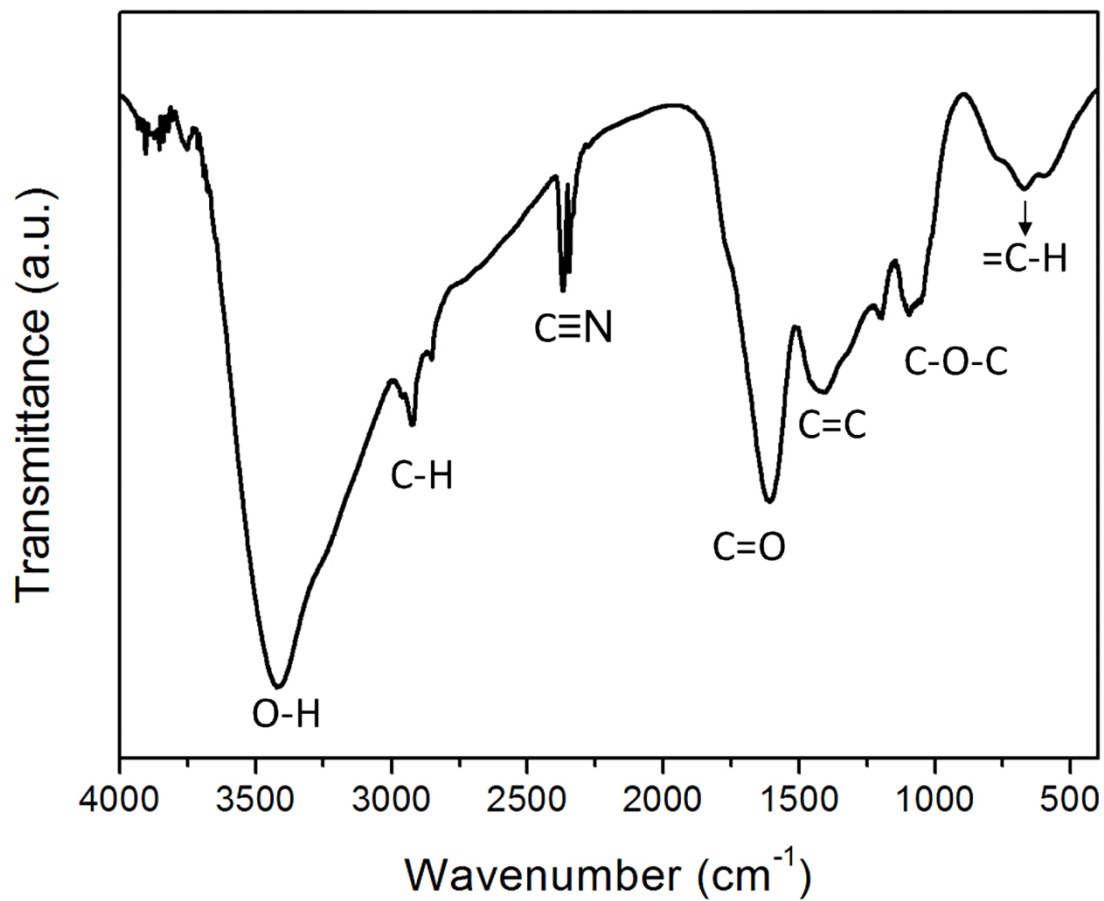


Figure S1: FTIR spectrum of CDs.

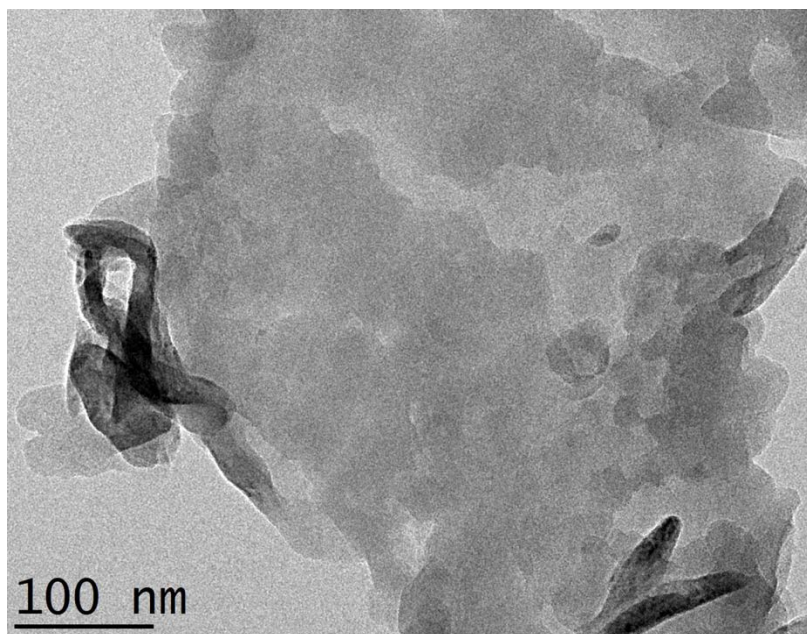


Figure S2: TEM image of g-C₃N₄.

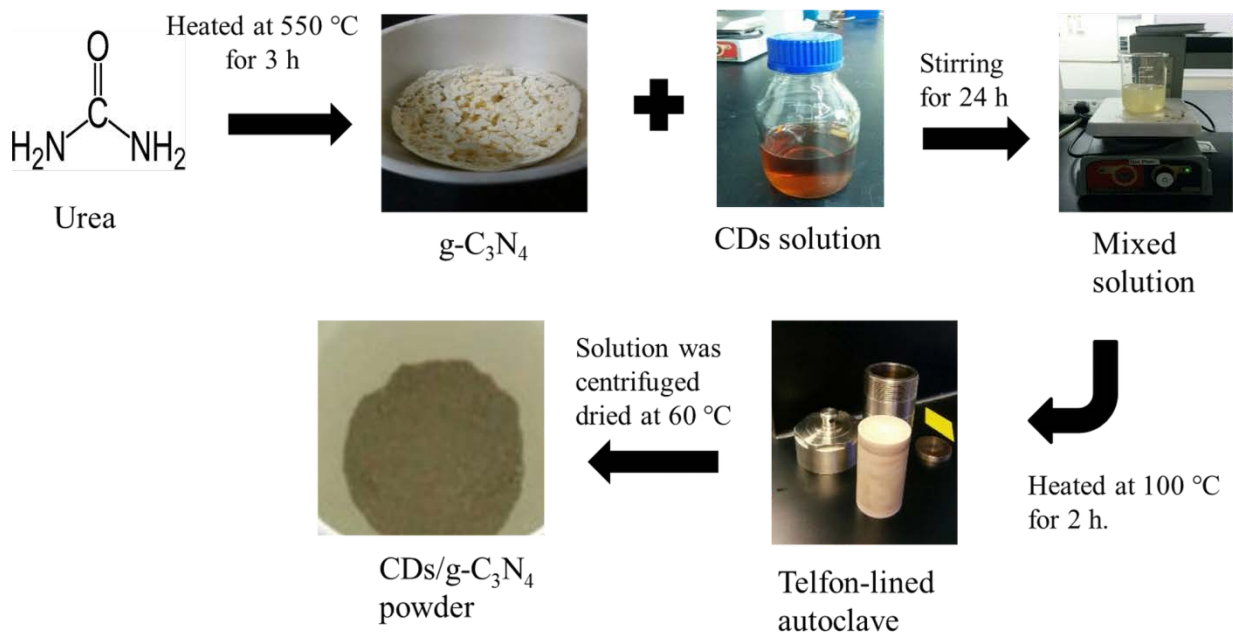


Figure S3: Synthesis route of CDs/g-C₃N₄ composites.

Table S1: The photodegradation rate of BPA by synthesized photocatalysts.

Sample	Photodegradation rate (%)	K (min ⁻¹)
g-C ₃ N ₄	68.20	0.01118
CDs/g-C ₃ N ₄ (0.1)	76.66	0.01521
CDs/g-C ₃ N ₄ (0.2)	95.51	0.02501
CDs/g-C ₃ N ₄ (0.5)	100	0.04329

Table S2: Comparison of the catalytic efficiency between the nanocomposites synthesized in this work and previous works see [15,16] in main text.

Sample	BPA Degradation Rate (%)	Reaction Time (min)	Ref. (see main text)
CDs/g-C ₃ N ₄ (0.1)	76.7	90	*
CDs/g-C ₃ N ₄ (0.2)	95.5	90	*
CDs/g-C ₃ N ₄ (0.5)	100	90	*
HT-g-C ₃ N ₄ /TiO ₂	46.9	360	[15]
g-C ₃ N ₄ /TiO ₂	45.8	360	[15]
g-C ₃ N ₄	55	210	[16]
acid treated g-C ₃ N ₄	100	210	[16]

* current work

Table S3: The sunlight intensity for photodegradation experiments.

Time Interval (min)	0	15	30	45	60	75	90	105	120
Light intensity (100 lux)	823	867	904	920	870	862	934	950	900