Electronic Supplementary Material

Graphene quantum dots as novel and green nano-materials for the visible-light-driven photocatalytic degradation of cationic dye

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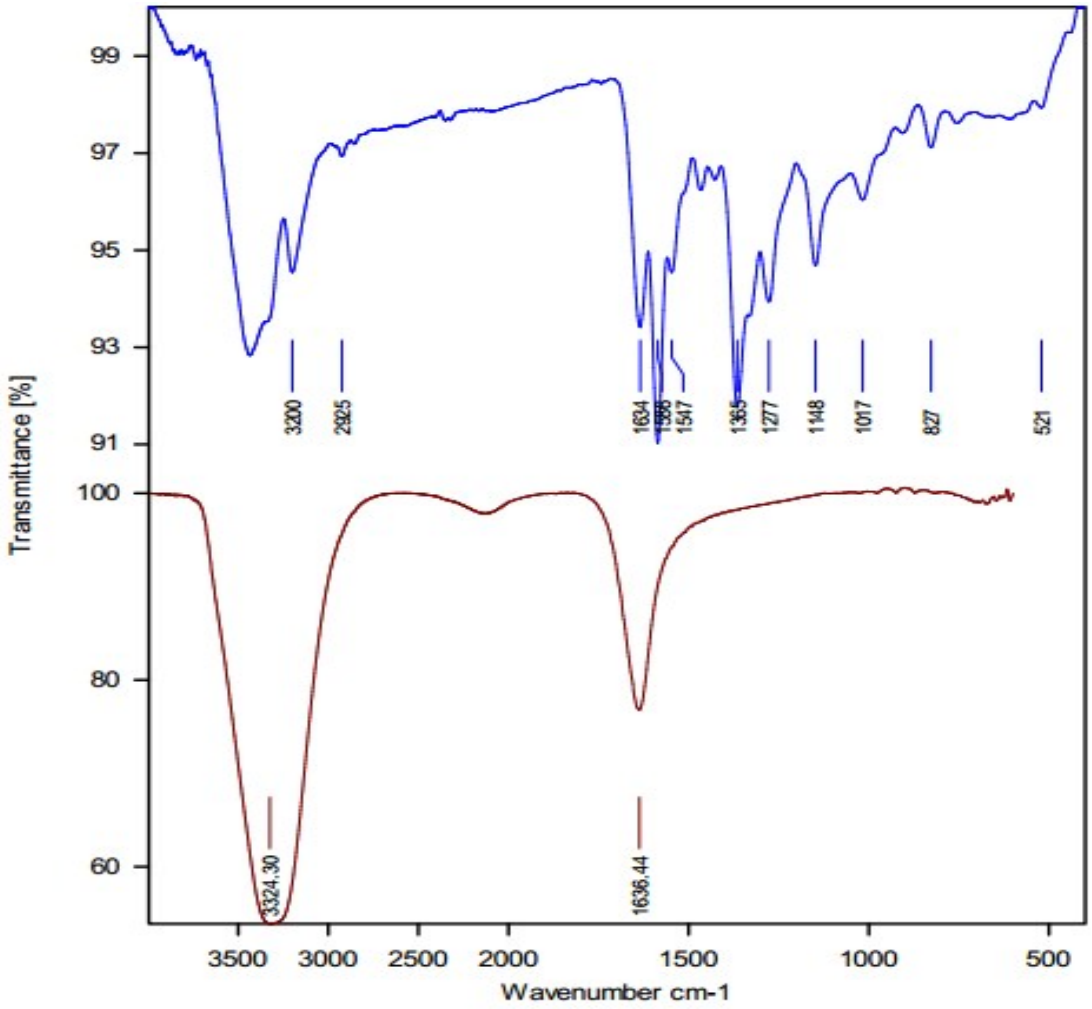
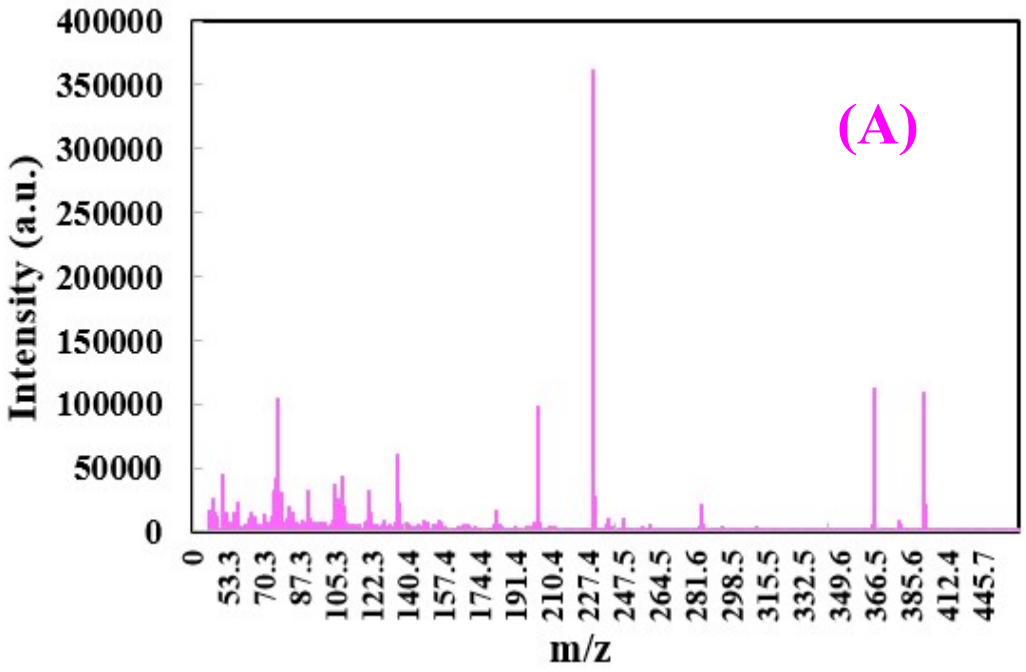
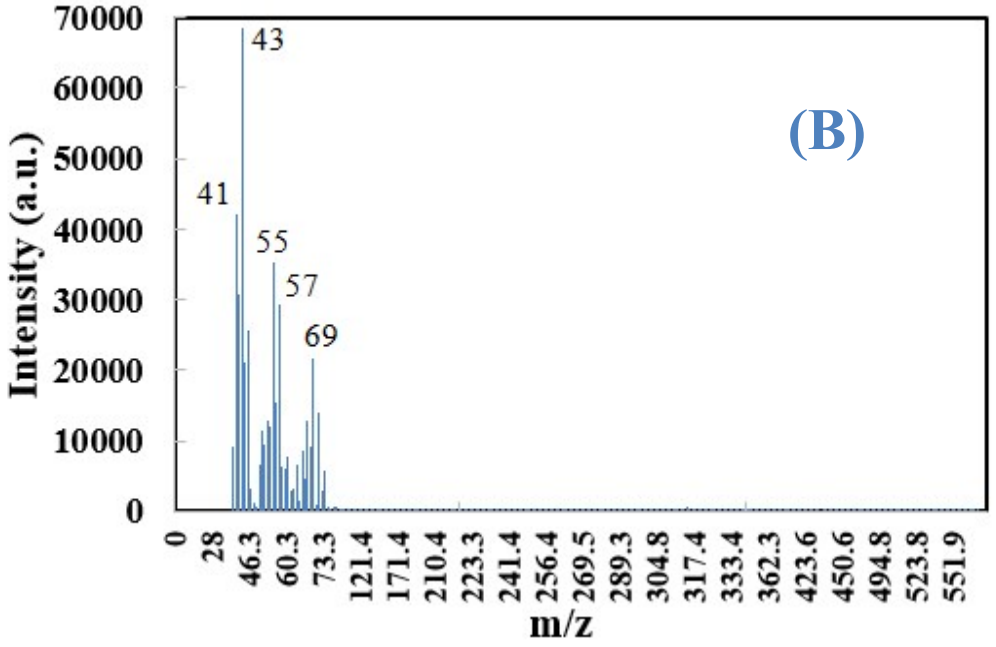


Fig. S1. IR spectra of (a) Initial NF, (b) NF after degradation.


(A)
Intensity (a.u.)
400000
350000
300000
250000
200000
150000
100000
50000
0
0
53.3
70.3
87.3
105.3
122.3
140.4
157.4
174.4
191.4
210.4
227.4
247.5
264.5
281.6
298.5
315.5
332.5
349.6
366.5
385.6
412.4
445.7
m/z


(B)
Intensity (a.u.)
70000
60000
50000
40000
30000
20000
10000
0
43
41
55
57
69
0
28
46.3
60.3
73.3
121.4
171.4
210.4
223.3
241.4
256.4
269.5
289.3
304.8
317.4
333.4
362.3
423.6
450.6
494.8
523.8
551.9
m/z

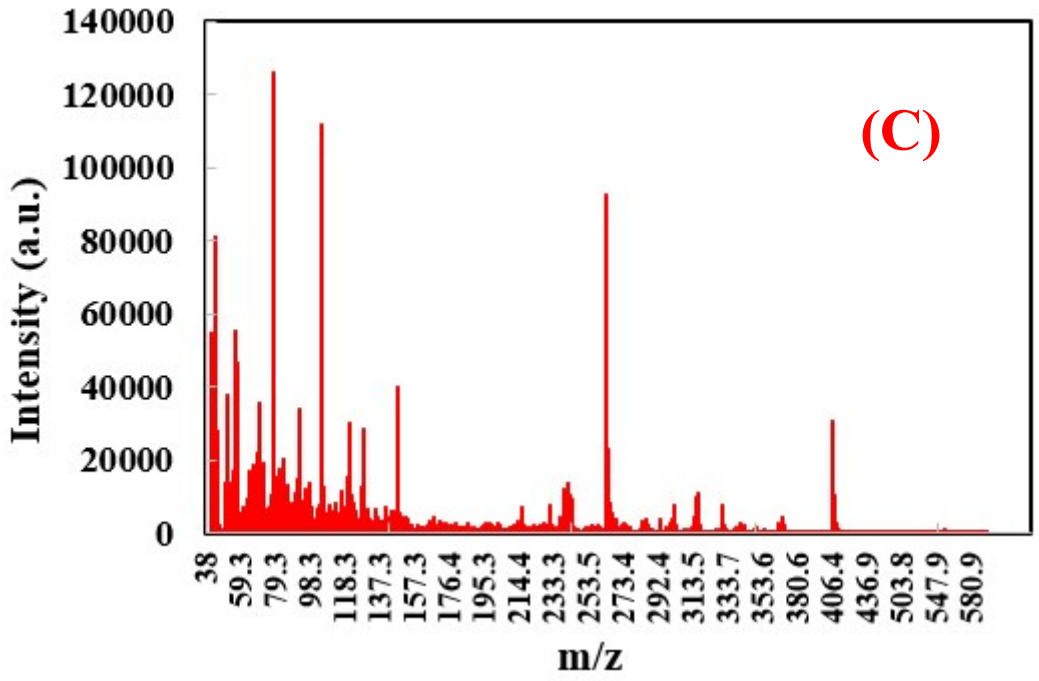


Fig. S2. Mass spectra of NF (A) before, (B) after degradation and (C) mass spectrum of GQDs.

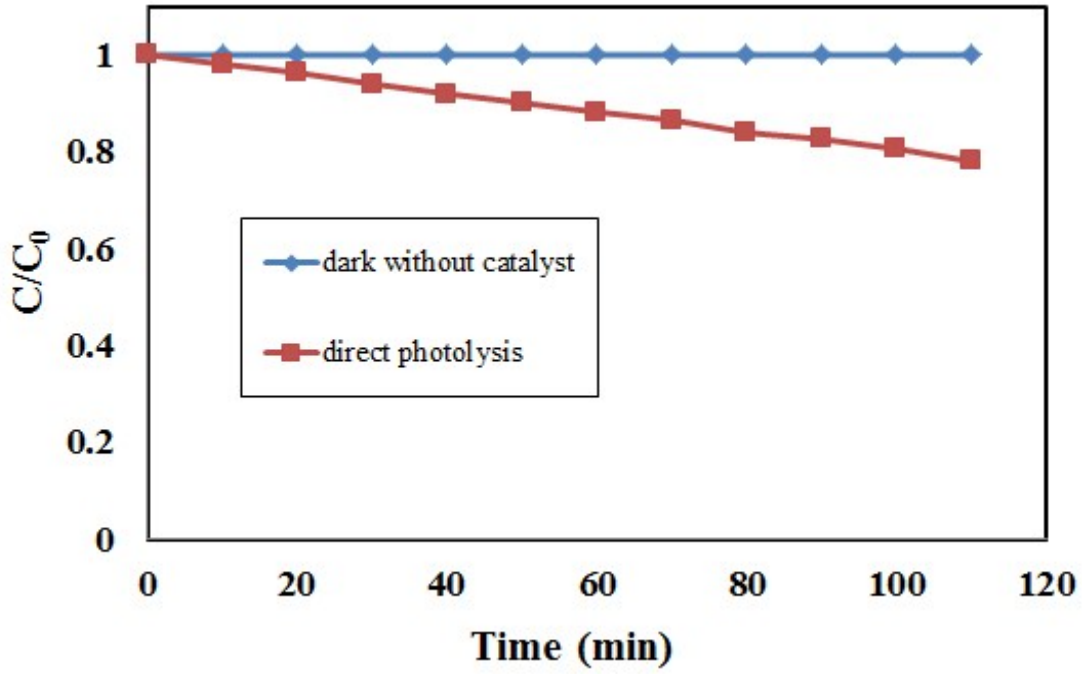


Fig. S3. Degradation of NF under irradiation of visible-light without adding any GQDs, dark without catalyst, and direct photocatalysis.