Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Graphitic Carbon Nitride Nanosheet @ Metal-Organic Framework Core-shell Nanoparticles for Photo-chemo Combination Therapy

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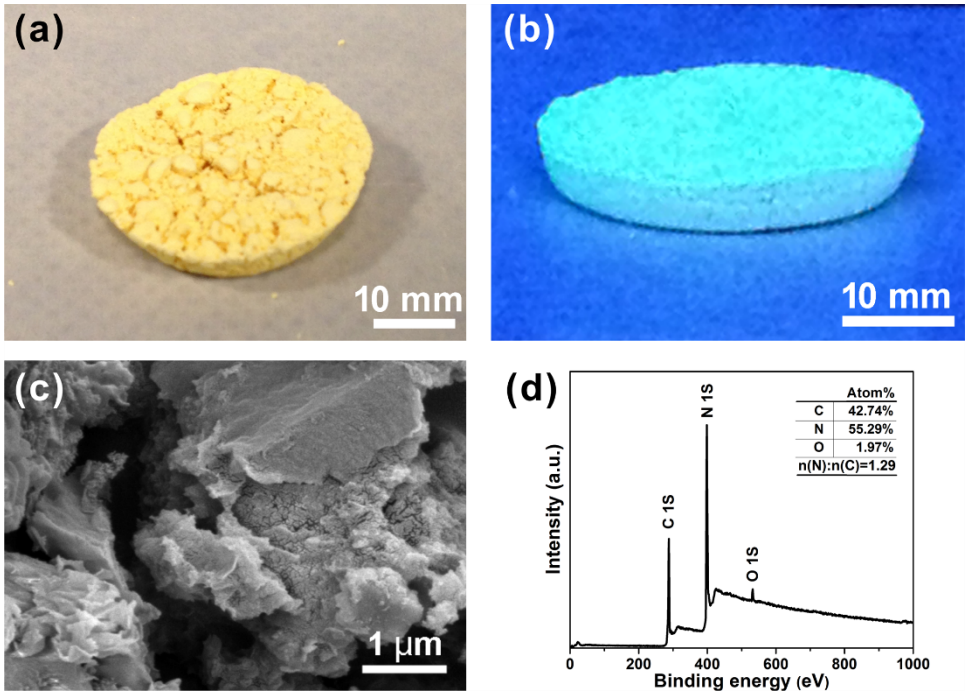


Fig. S1. Bulk g-C_3N_4 under (a) visible light and (b) UV light; (c) an SEM image (d) an XPS elemental analysis of bulk g-C_3N_4.

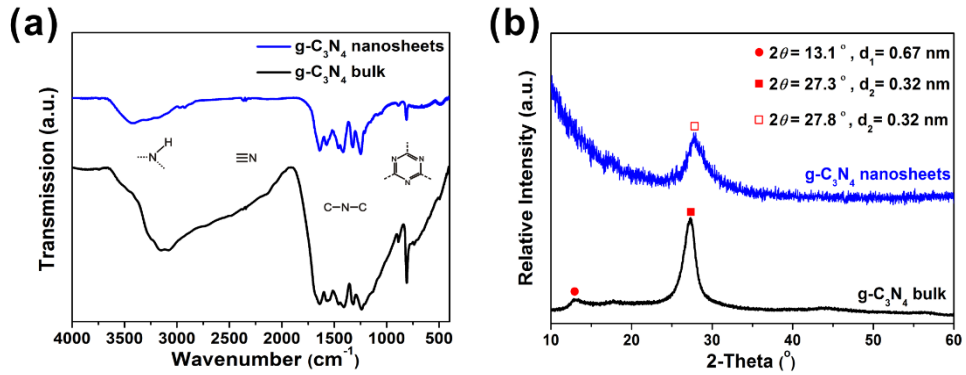


Fig. S2. (a) FTIR spectra (b) XRD diffraction patterns of g-C_3N_4 bulk (black) and g-C_3N_4 nanosheets (blue).

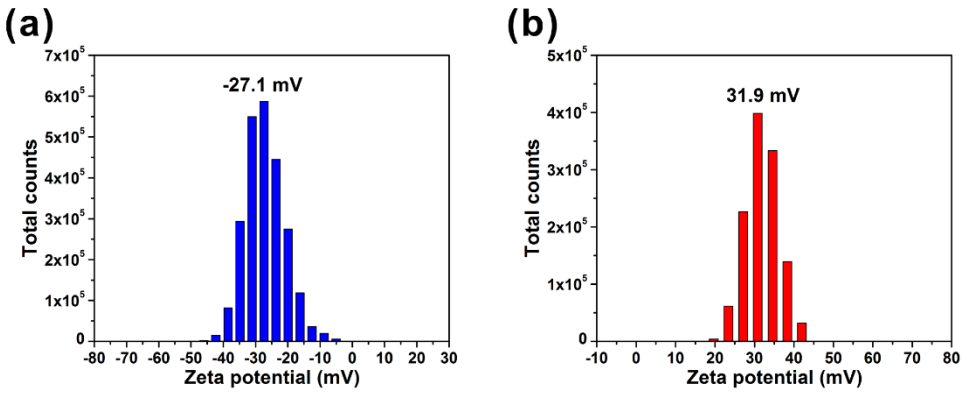
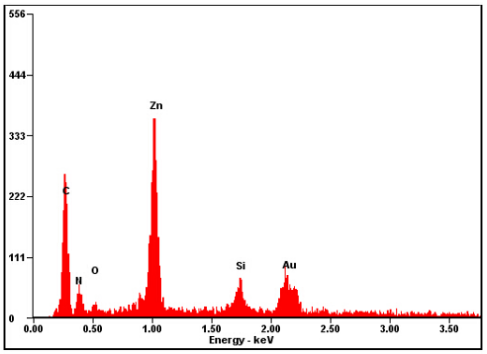


Fig. S3. Zeta potentials of (a) g-C_3N_4 nanosheets, (b) g-C_3N_4@ZIF-8 nanoparticles.



Element	*Wt%*	*At%*
CK	29.83	61.93
NK	08.80	15.67
OK	01.93	03.01
ZnL	32.93	12.56
SiK	04.58	04.06
AuM	21.94	02.78
Matrix	Correction	ZAF

Fig. S4. EDX analysis of DOX-loaded g-C_3N_4@ZIF-8 nanoparticles (Si: substrate, Au: a very thin layer of gold coating for improved conductivity of the sample).

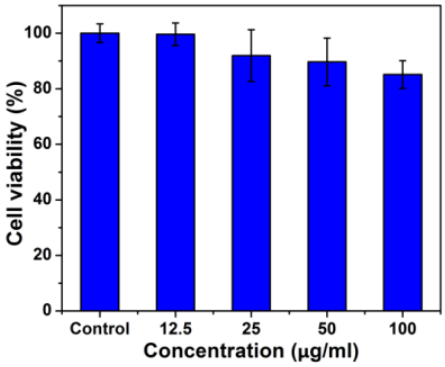


Fig. S5. The viability of A549 cells incubated with g-C_3N_4 nanosheets but without irradiation.

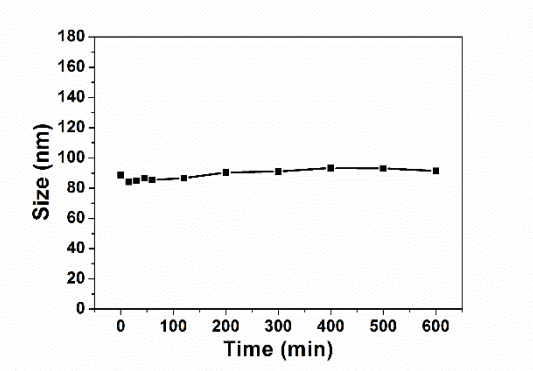


Fig. S6. The DLS analysis of the size of g-C_3N_4@ZIF-8 nanoparticles at different time points of storage in water.

Table S1. Loading efficiency and content of DOX to nanoparticles at different weight ratios

DOX/ NPs weight ratio	Loading efficiency (%)	Loading content (mg of drug per 1 mg of nanoparticles)
0.1	95.84	0.096
0.2	53.36	0.167
0.4	50.27	0.201
0.6	44.77	0.269
1.0	34.57	0.336
1.2	16.14	0.323