Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2022



Supplementary Figure 1: (a) Emission spectrum of FN CD at 10% concentration under 345 nm excitation. The integrated intensity of this spectrum used to determine QY. (b) Absorbance spectrum of concentration FN CD at 10% concentration, value at 345 nm used to determine QY.



Supplementary Figure 2: Emission spectrum of FN CD at 5% concentration under 345 nm excitation, 8 months later.



Supplementary Figure 3. (a) TEM image of FN derived CDs at direct magnification 86,000x. (b) TEM image of FN derived CDs at direct magnification 130,000x. (c) TEM image of FN derived CDs at direct magnification 8,000x. (d) TEM image of FN derived CDs at direct magnification 220,000x.





Spectrum 1

· • •

Cu Kα1

1mm

C Kα1,2 Spectrum 1 Spectrum 3 pectrum Spectrum 2 Spectrur 1mm 1mm 1mm Ν Κα1,2

Spectrum 1 Spectrum 3 Spectrum 2 Ο Κα1

Spectrum 3

Spectrum 2



Supplementary Figure 4. (a) Black and white electron image of FN CD locations 1-3. (b) Color coded according to element energy dispersive X-ray spectroscopy (EDS). (c-f) EDS images of sample indicating specific elements. (g) Map sum spectrum weight % of elements at locations 1-3. (h-j) Weight % of elements at locations 1-3.





Supplementary Figure 5. (a) Black and white electron image of FN CD locations 5 and 6. (b) Color coded image according to element energy dispersive X-ray spectroscopy (EDS). (c-f) EDS images of sample indicating specific elements. (g) Map sum spectrum weight % of elements at locations 5 and 6. (h and i) Weight % of elements at locations 5 and 6.







.

Ο Κα1



Cu Kα1





Map Sum Spectrum Wt% σ

Cu

.....

0.0

Cu

C Kα1,2

500μm

Al Kα1

500μm





Supplementary Figure 6. (a) Black and white electron image of copper substrate at locations 7-9. (b) Color coded image according to element energy dispersive X-ray spectroscopy (EDS). (c-f) EDS images of substrate indicating specific elements. (g) Map sum spectrum weight % of elements at locations 7-9. (h-j) Weight % of elements at locations 7-9.



Supplementary Figure 7. (a) Viability control of MDA-321 cell line stained with 10 μ L PI . (b,c,d) MDA- 321 cell line stained with 100 μ L of FN CDs and 10 μ L PI for each sample.