

**Supporting Information
For**

**Organic Nanoparticles Composed of Fréchet-type dendrons:
Synthesis, Characterization, Self-assembly and Reversible
Guest Encapsulation**

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1. TEM image of AuG₁

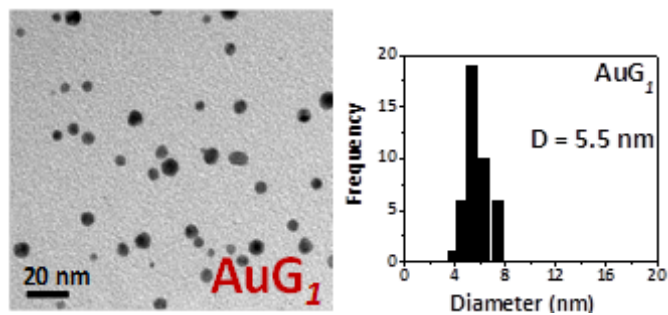


Fig. S1 TEM images of AuG₁.

2. Absorption spectra of AuG₁ and FDN

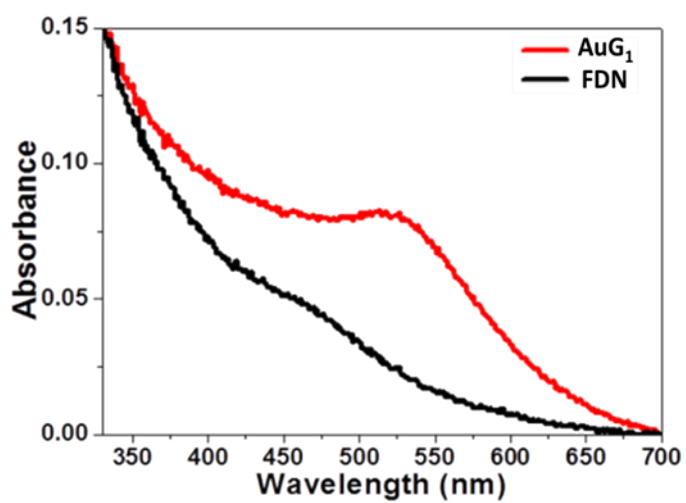


Fig. S2 Absorption spectra of AuG₁ and FDN.

3. Solubility of FDN in various solvents

Solvent	Solubility
Cyclohexane	Insoluble
Hexane	Insoluble
Toluene	Partially soluble
Tetrahydrofuran	soluble
Chloroform	soluble
Dichloromethane	soluble
Acetone	Partially soluble
Acetonitrile	Partially soluble
Alcohols	Insoluble
Ethers	Insoluble

Table ST1. Solubility of FDN in various solvents.

4. MALDI-TOF spectrum of FDN

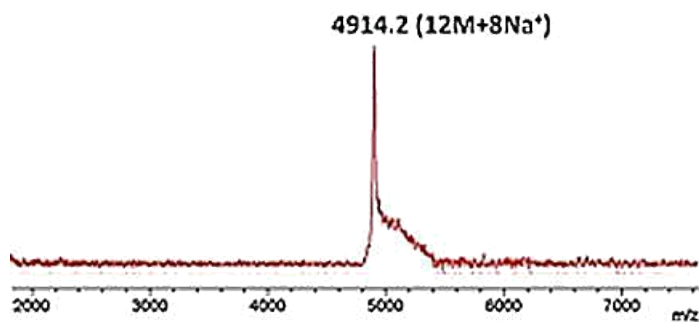


Fig. S3 MALDI-TOF spectrum of FDN.

5. EDX spectrum of FDN

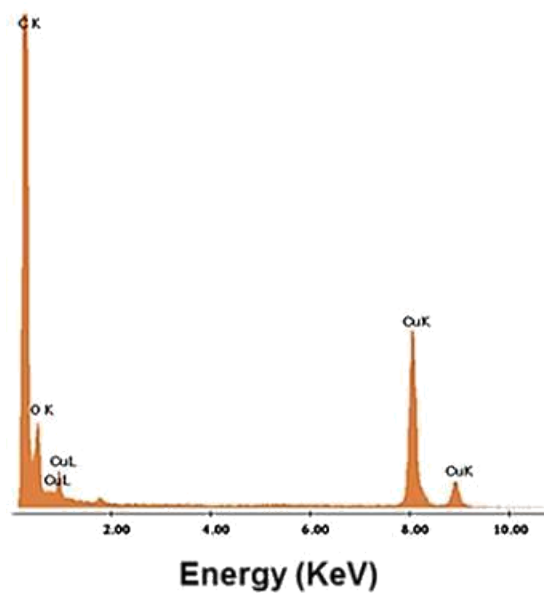


Fig. S4 EDX spectrum of FDN.

6. DLS spectrum of FDN

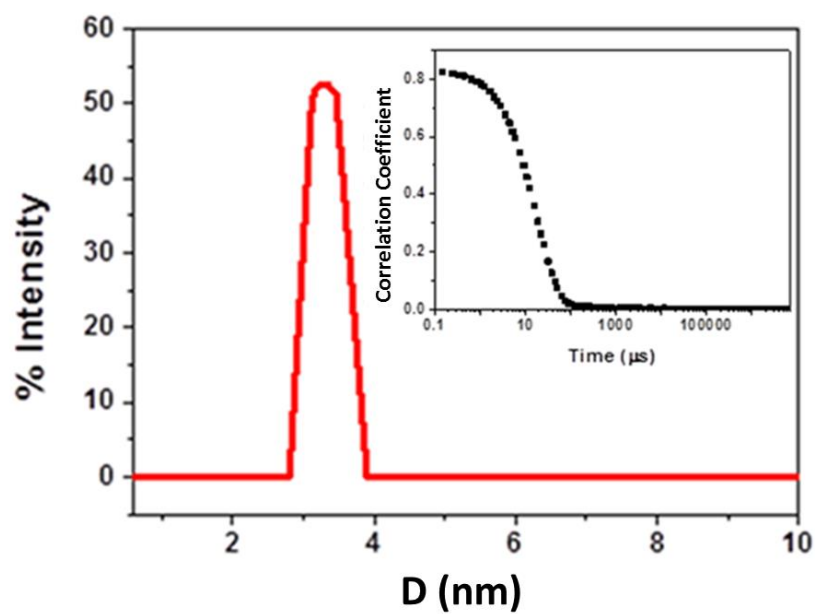


Fig. S5 DLS spectrum of FDN. The corresponding correlogram is shown in the inset.

7. XPS spectrum of FDN

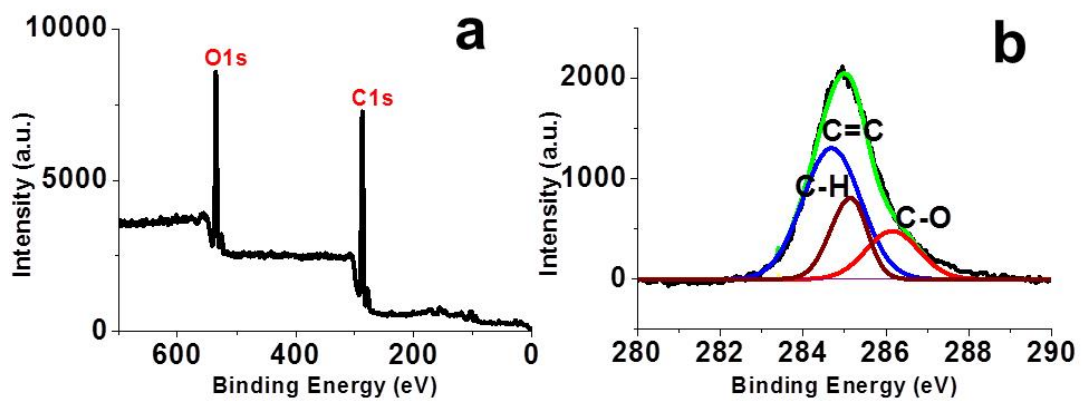


Fig. S6 (a) XPS survey spectrum of FDN and (b) C1s spectrum of FDN.

8. ^1H NMR spectrum of FDN

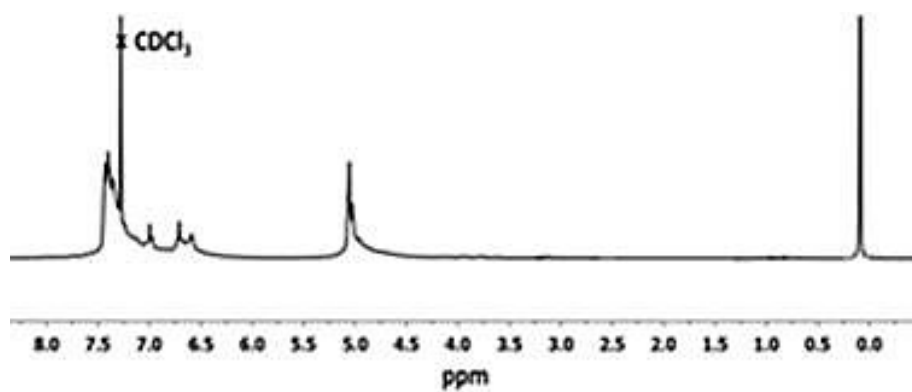


Fig. S7 ^1H NMR spectrum of FDN in CDCl_3 .

9. ^{13}C and DEPT- ^{13}C NMR spectra of FDN

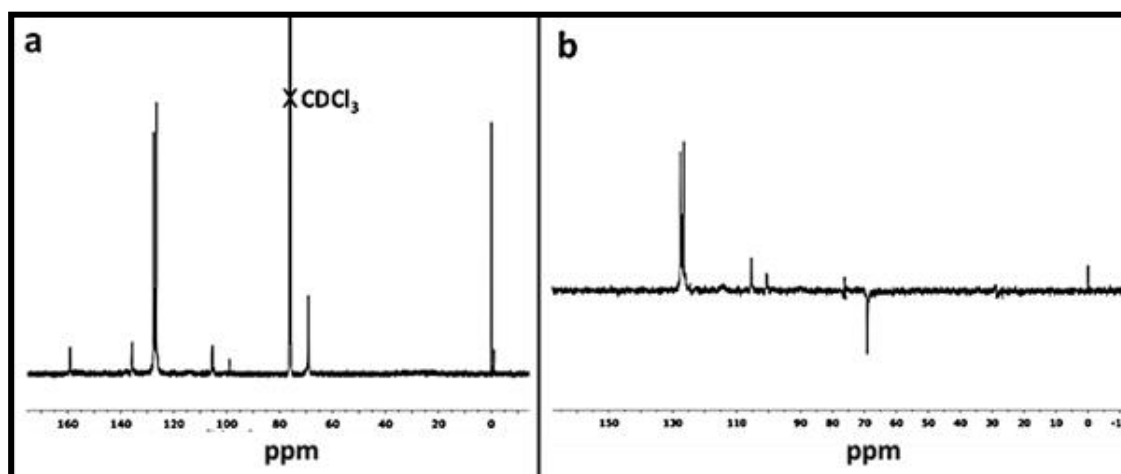


Fig. S8 (a) ^{13}C spectrum of FDN in CDCl_3 and (b) DEPT - ^{13}C NMR spectrum of FDN in CDCl_3 .

10. IR Spectrum of FDN

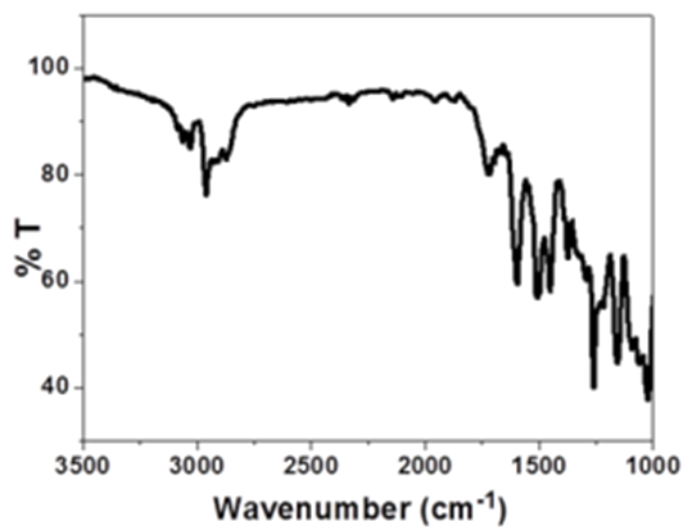


Fig. S9 IR spectrum of FDN.

11. Thermogram of FDN

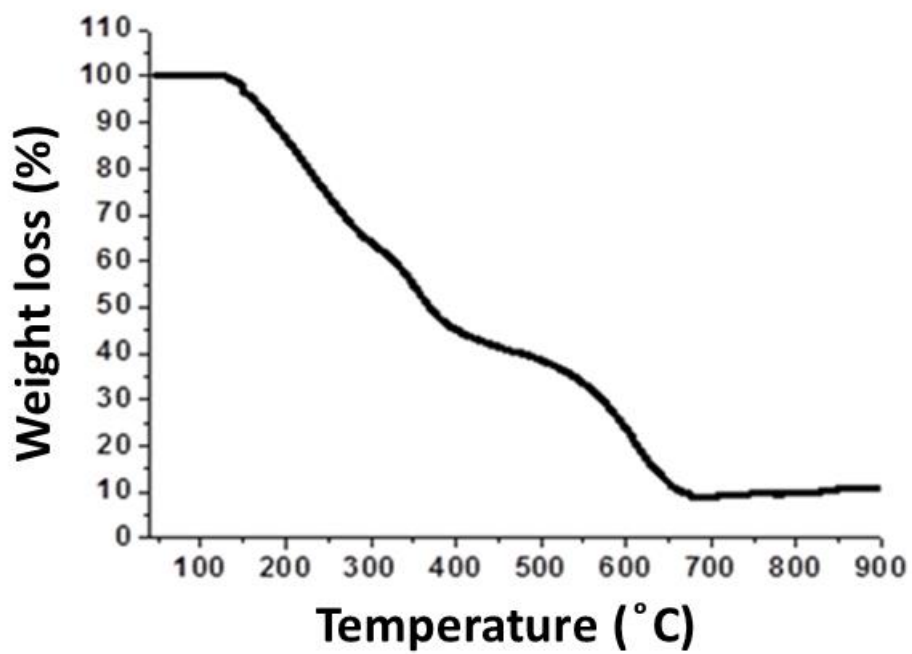


Fig. S10 Thermogram of FDN.

12. DLS spectra of FDN at different concentrations

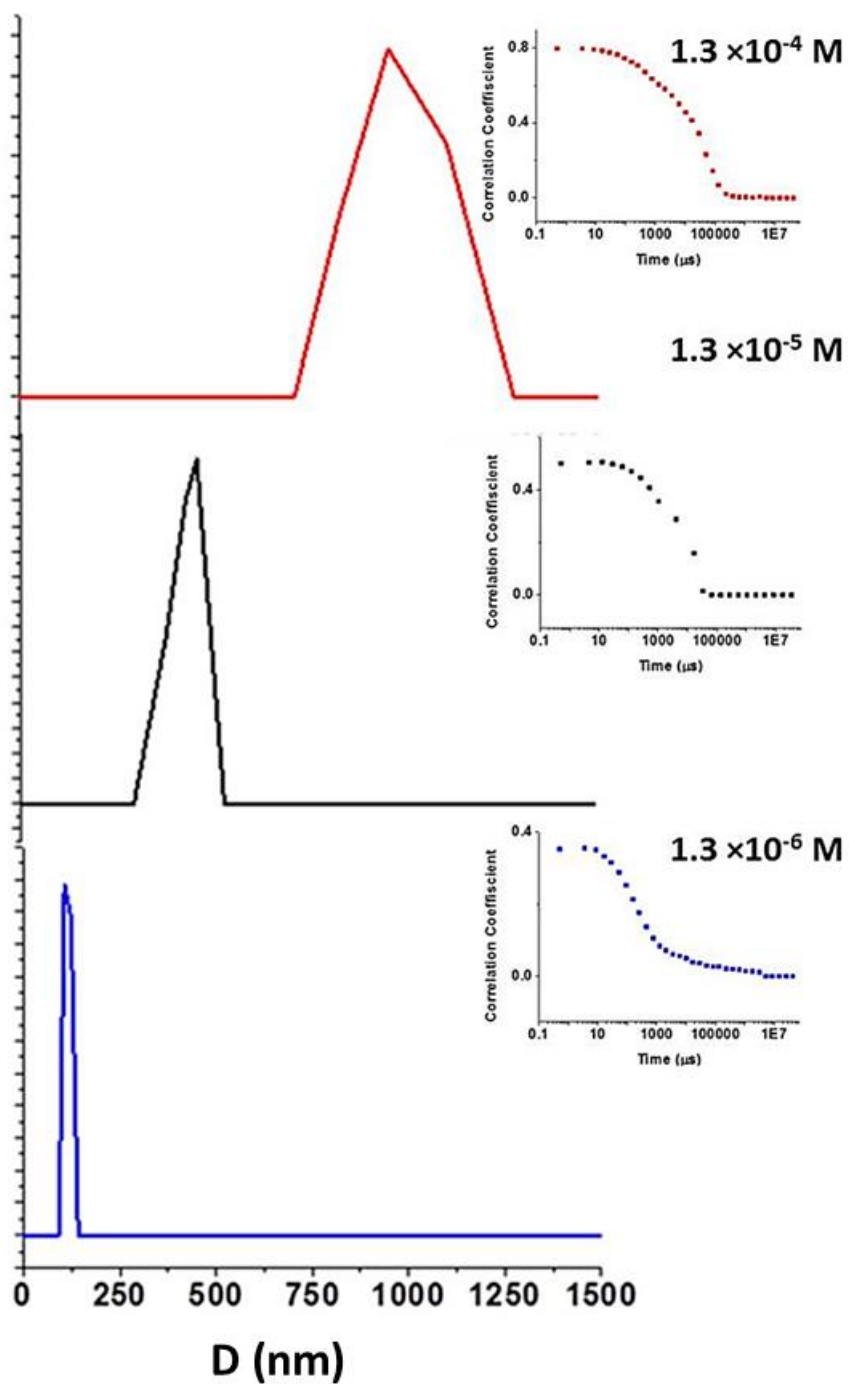


Fig. S11 DLS spectra of FDN at different concentrations. The corresponding correlograms are shown in the inset.

13. TEM images of particles fusing through neck formation

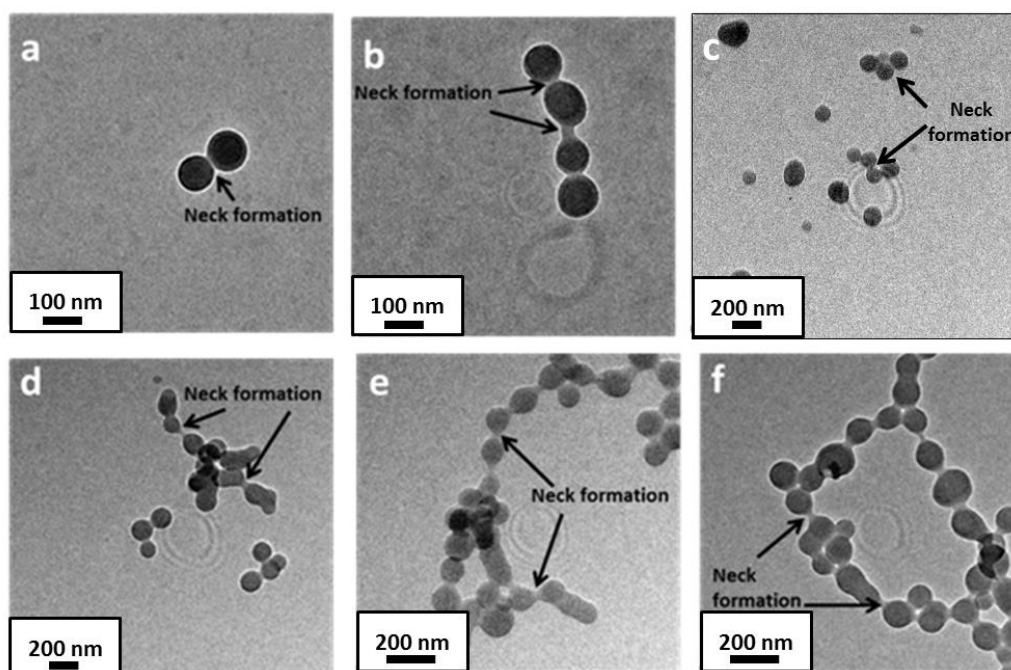


Fig. S12 TEM images of particles fusing through neck formation.

14. DLS spectra indicating transformation of particle to fibre

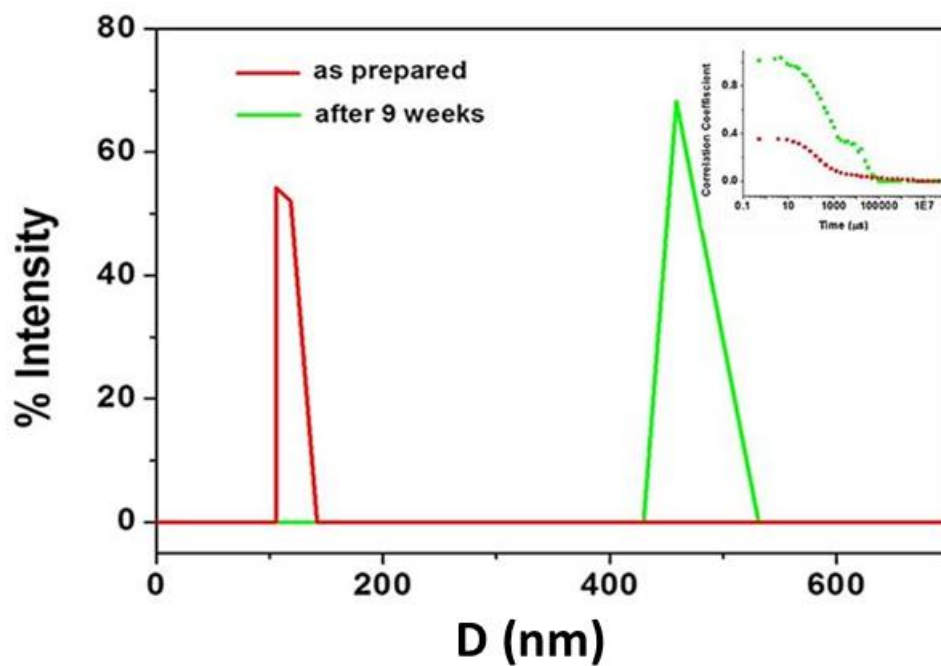


Fig. S13 DLS spectra of FDN at different time intervals (10^{-6} M concentration). The corresponding correlograms are shown in the inset.

15. Excitation and emission spectra of dye encapsulated FDNs

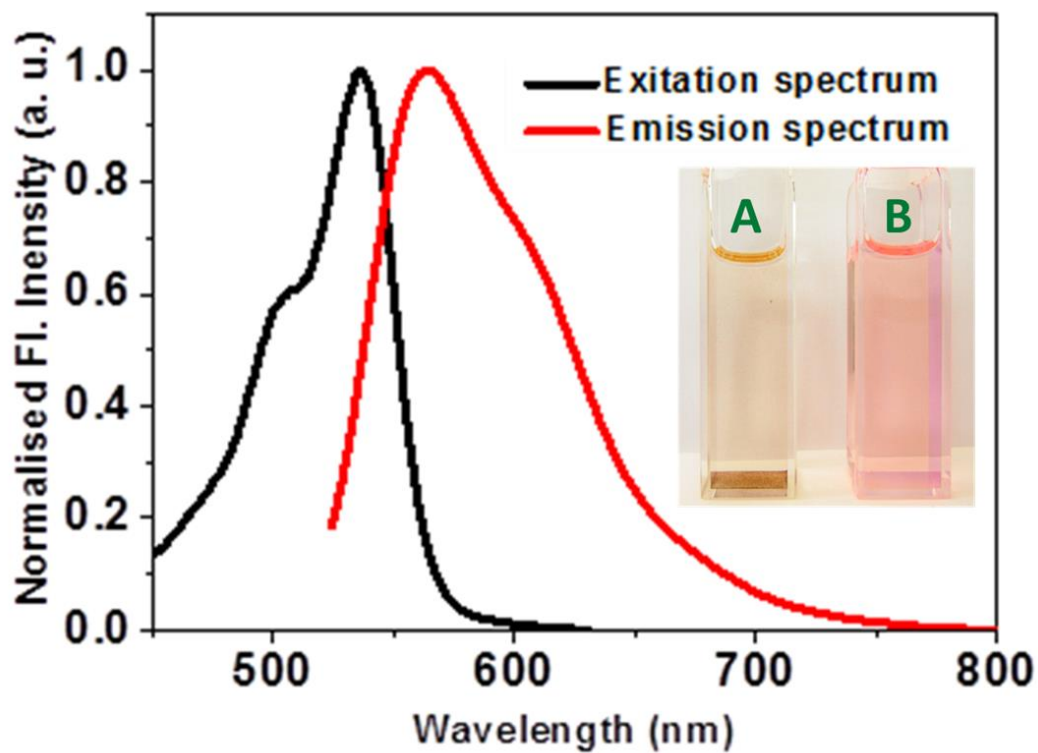


Fig. S14 Excitation and emission spectra of R6G encapsulated FDNs. Inset shows the photograph of toluene solution of FDN before (A) and after (B) dye encapsulation.