

Supporting Information for:

**Organogels fabricated from self-assembled nanotubes containing
Core substituted Perylene diimide derivative.**

PRAJNA MOHARANA and G. SANTOSH *

Division of Chemistry, School of Advanced Sciences, Vellore Institute of Technology,
Chennai– 600127, INDIA

Contents

1. ^1H NMR data
2. UV/Vis spectra in different organic solvents
3. UV/Vis vs Fluorescence spectra
4. Scanning electron microscope (SEM) image and histogram
5. Powder X-ray diffraction (PXRD) analysis
6. IR analysis
7. Concentration dependent study
8. Organogels
9. Scanning electron microscope (SEM) images of xerogels
10. Size distribution of nanostructure using histogram

Characterization

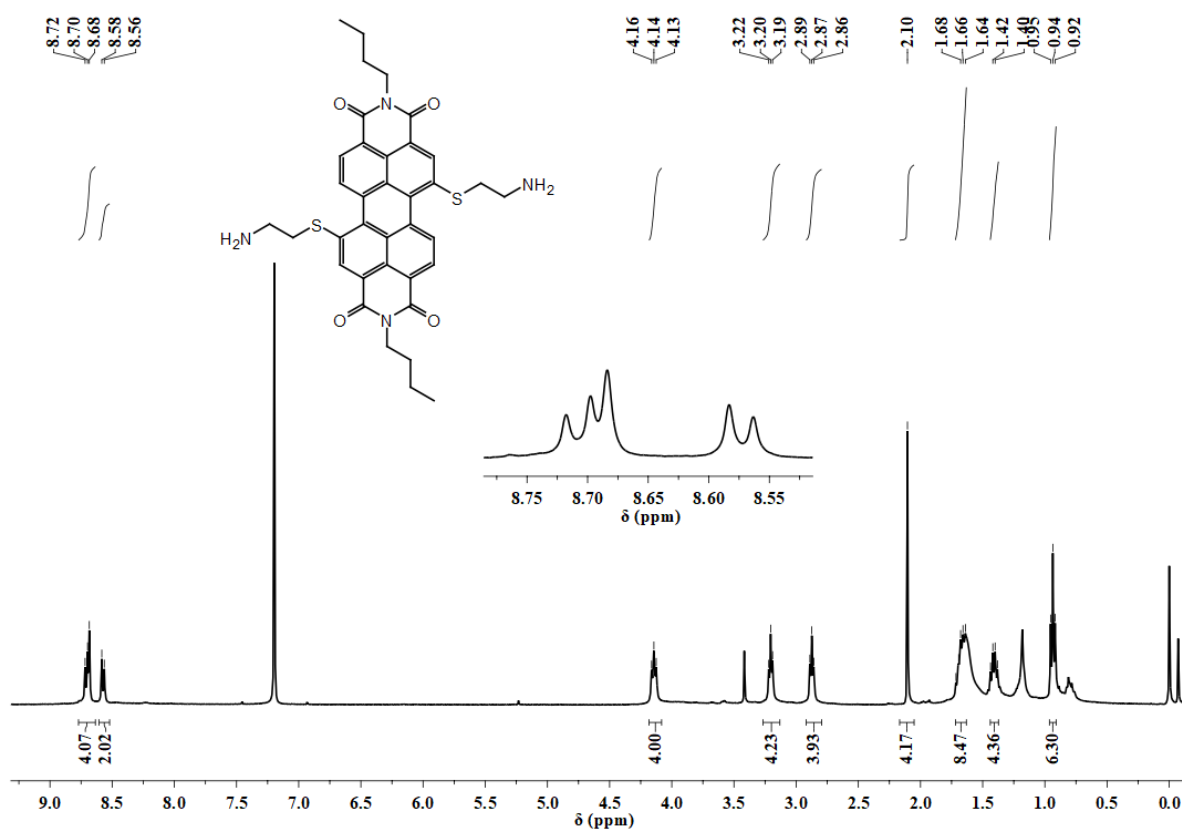


Figure S1. ¹H NMR (400 MHz, CDCl₃) spectrum of cys-PDI-cys.

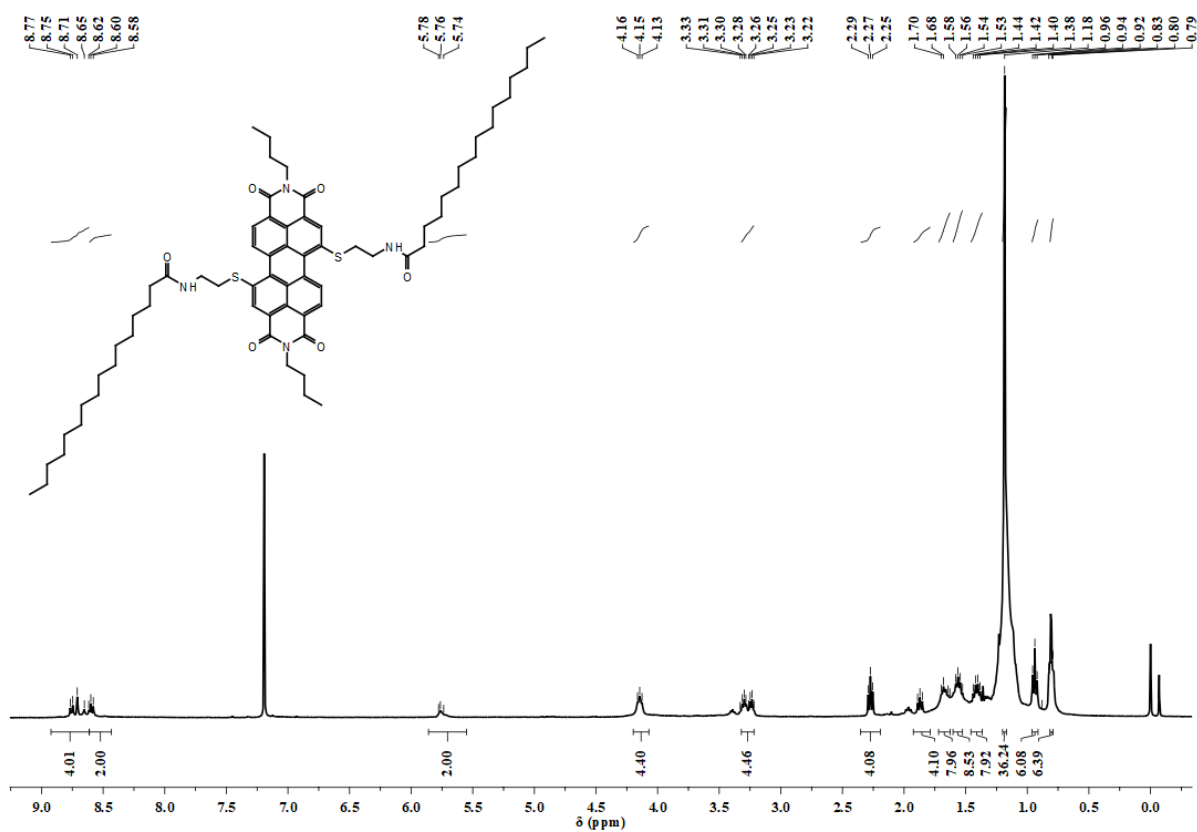


Figure S2. ^1H NMR (400 MHz, CDCl_3) spectrum of **PDI-1**.

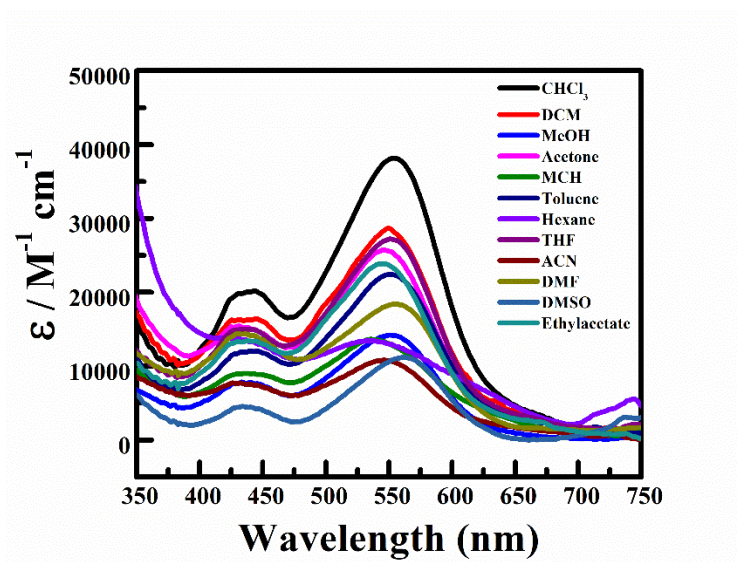


Figure S3. Absorption spectra of **PDI-1** in different organic solvents ($5\mu\text{M}$).

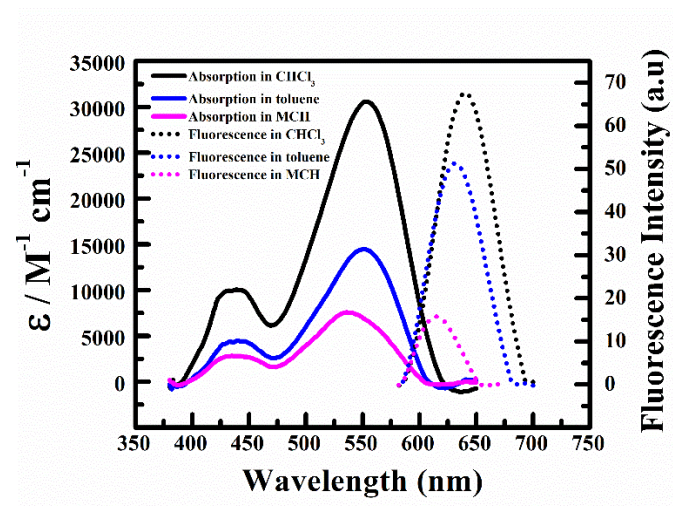


Figure S4. Absorption and fluorescence spectra of **PDI-1** in CHCl₃, toluene and MCH (5 μ M).

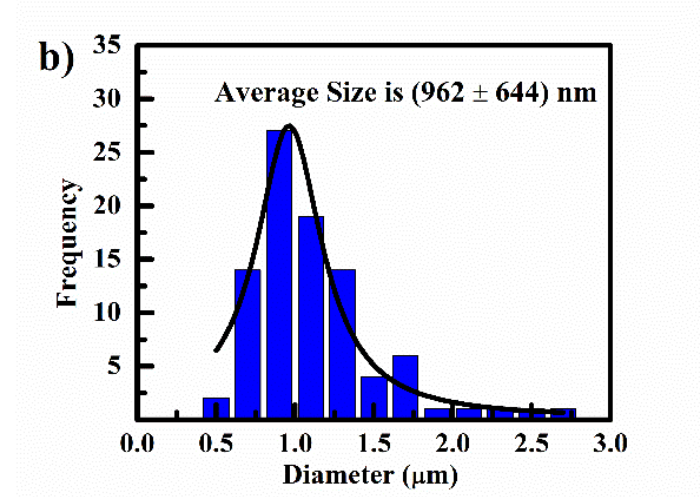
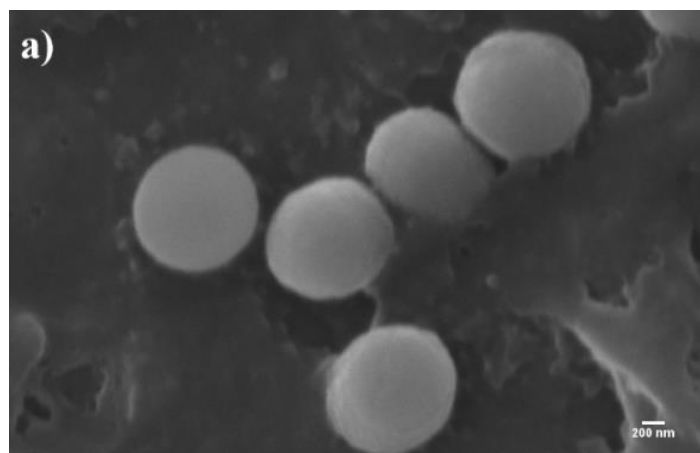


Figure S5. a) SEM image of **PDI-1** spherical aggregates in hexane ($10\mu\text{M}$), and b) Size distribution histogram of vesicle diameter.

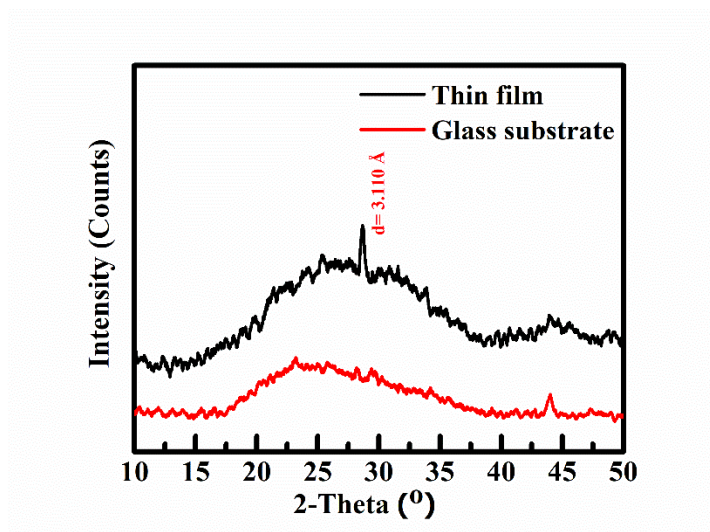


Figure S6. XRD patterns of spherical aggregates of **PDI-1** in hexane solution ($10\mu\text{M}$).

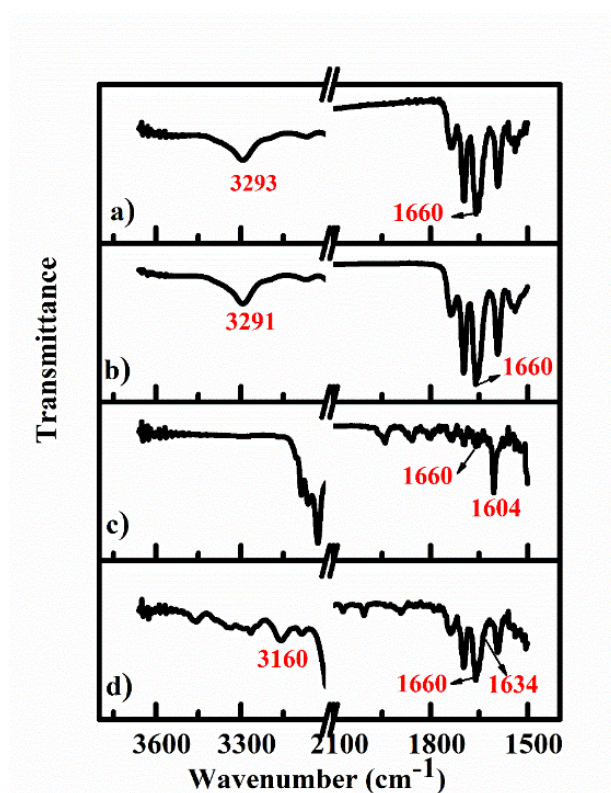


Figure S7. IR spectra of **PDI-1** in a) hexane and b) CHCl_3 . IR spectra of organogels of c) toluene, and d) MCH.

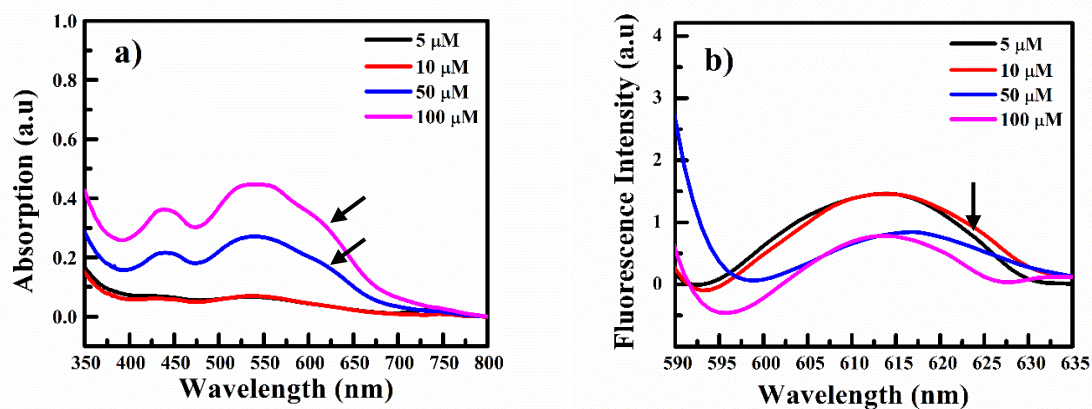


Figure S8. a) Absorption spectra and b) Fluorescence spectra of **PDI-1** in hexane in different concentrations ($5\mu\text{M}$, $10\mu\text{M}$, $50\mu\text{M}$, and $100\mu\text{M}$).

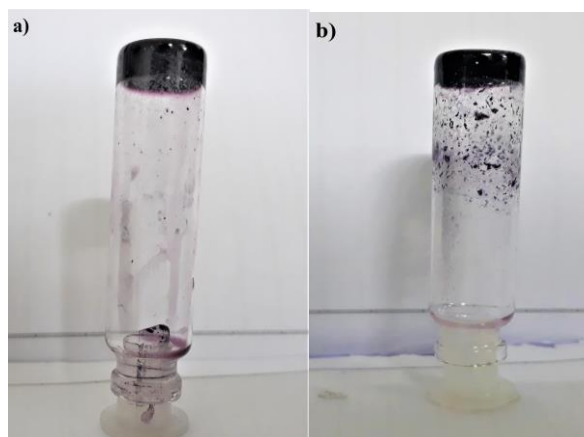
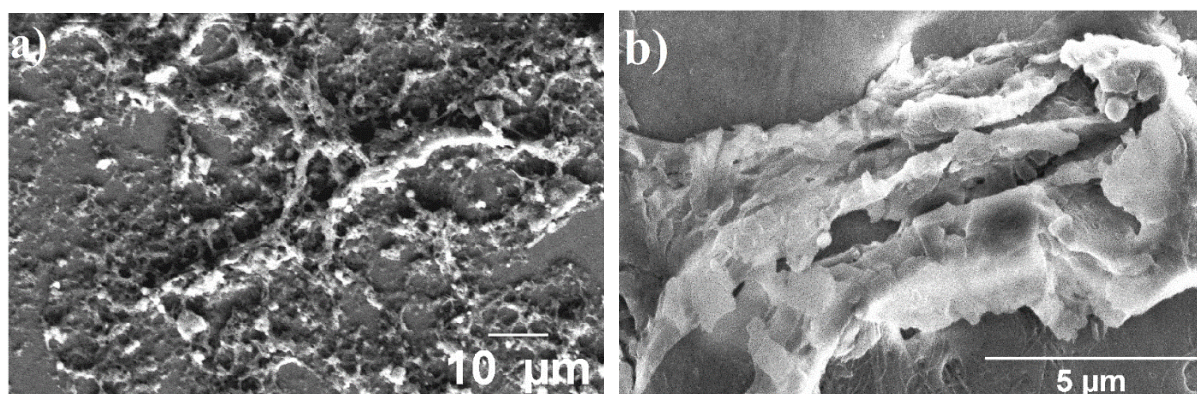


Figure S9. PDI-1 organogels of a) toluene and b) MCH.



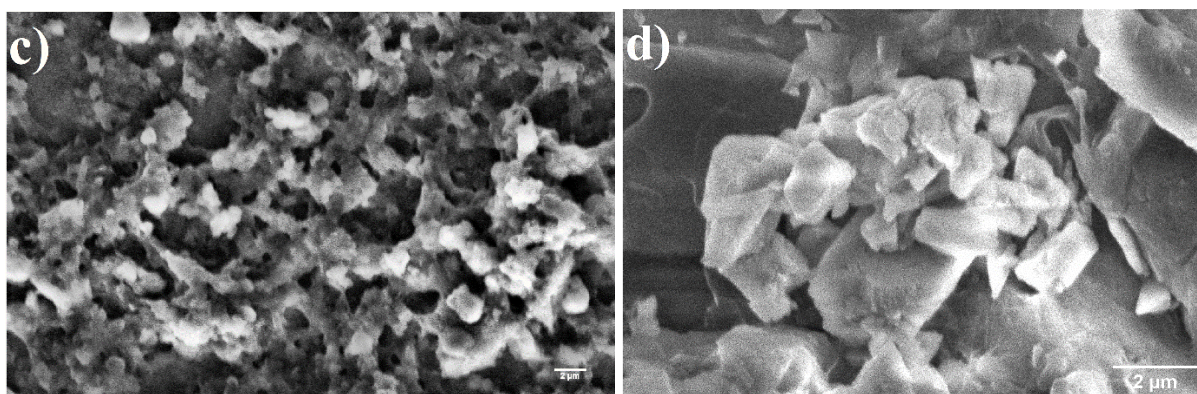


Figure S10. SEM images of xerogel of a) MCH, scale bar $10\mu m$, b) toluene, scale bar $5\mu m$, c) MCH, scale bar $2\mu m$ and d) toluene, scale bar $2\mu m$

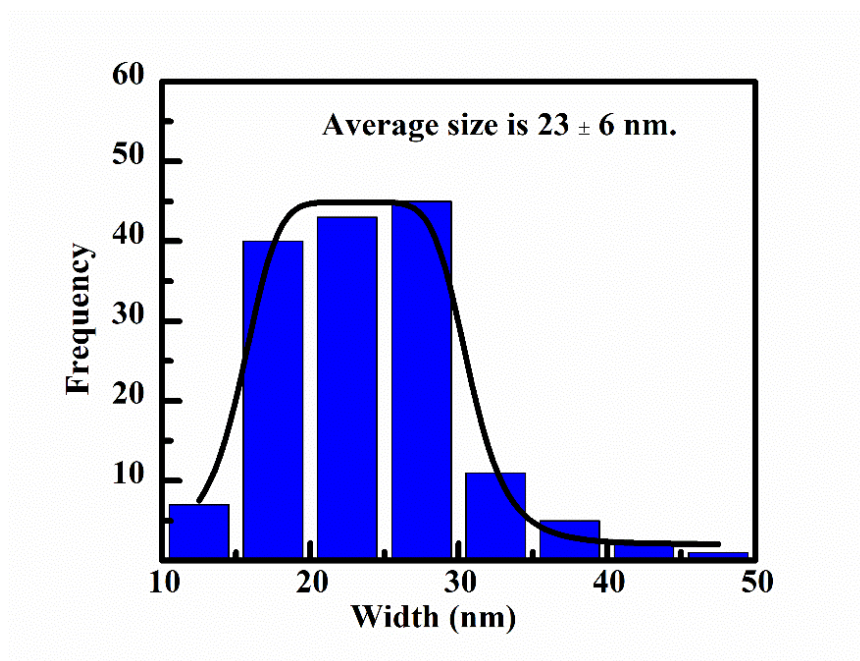


Figure S11. Size distribution histogram of nanotubes from toluene xerogel.

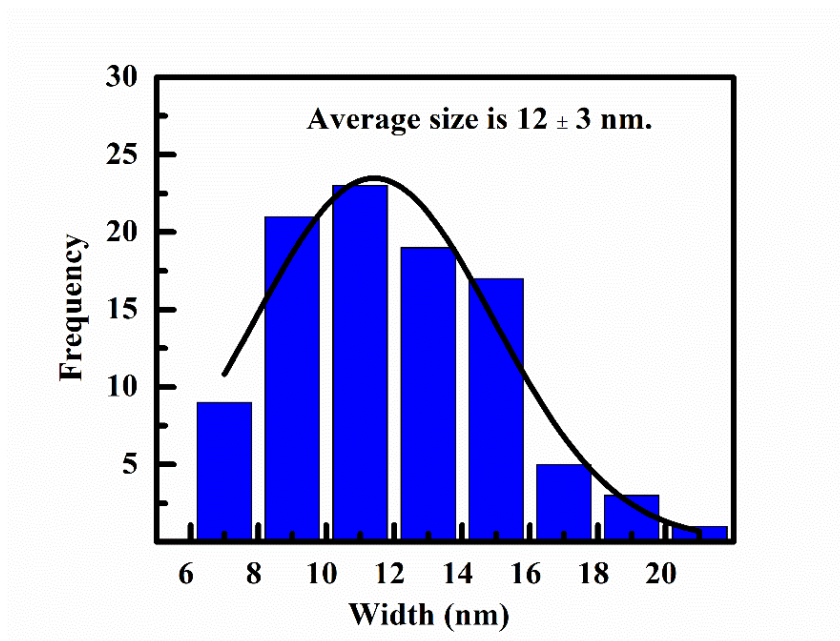


Figure S12. Size distribution histogram of nanofibers from MCH xerogel.