

Electronic Supplementary Information

Nanoconfinement of pyrene in mesostructured silica nanoparticles for trace detection of TNT in aqueous phase

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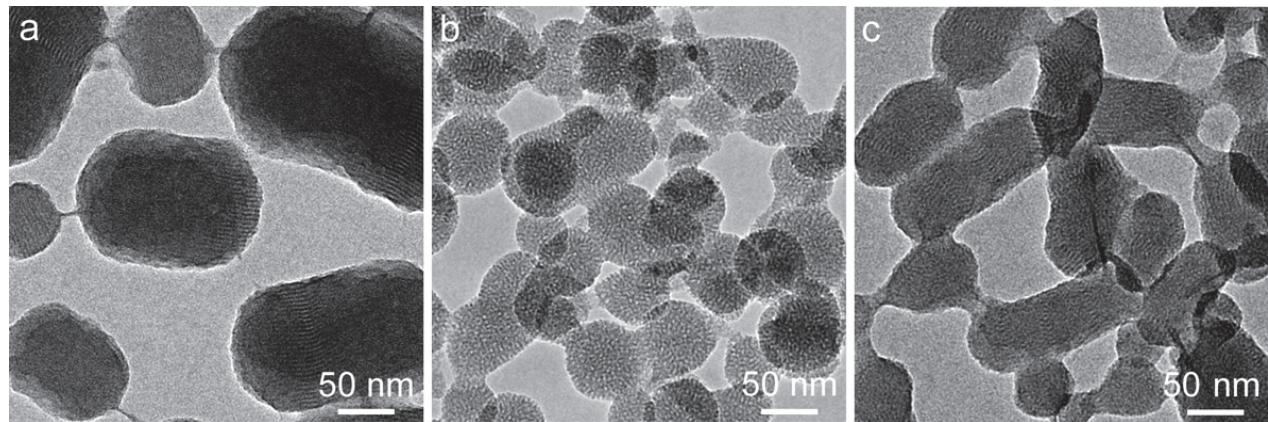


Fig. S1 TEM images of pMSNs prepared using (a) 6 mg, (b) 12 mg, and (c) 22 mg of pyrene.

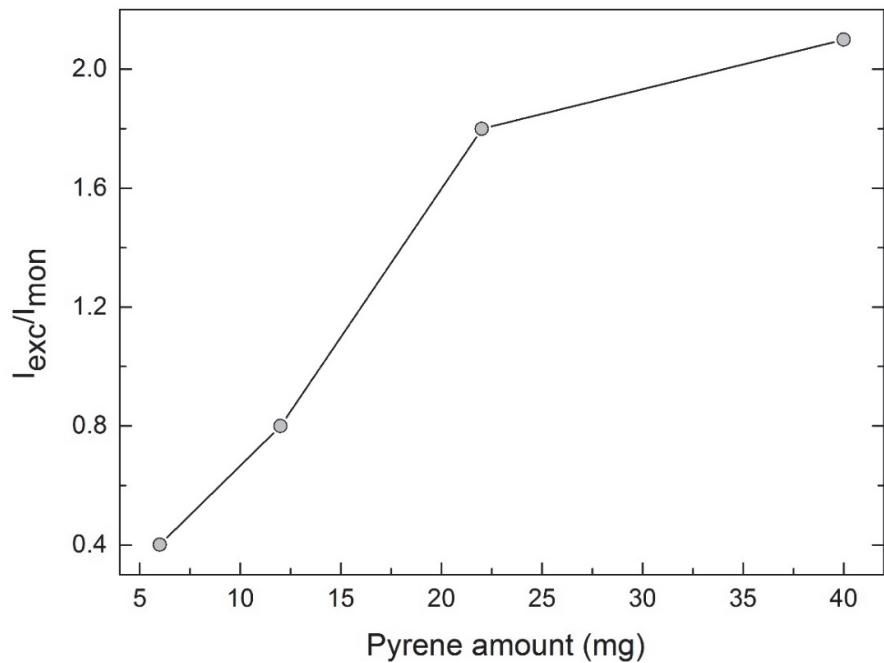


Fig. S2 $I_{\text{exc}}/I_{\text{mon}}$ ratios of pMSNs prepared using various amounts of pyrene. $I_{\text{exc}}/I_{\text{mon}}$ ratios were calculated to be 0.4, 0.8, and 1.8, for pMSNs prepared using 6 mg, 12 mg, and 22 mg of pyrene, respectively.

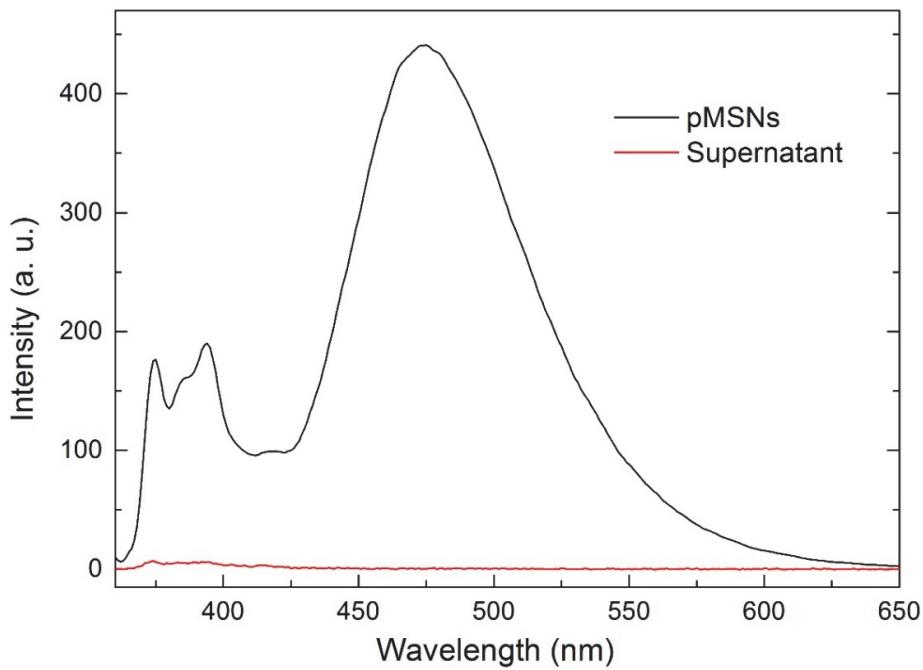


Fig. S3 Fluorescence spectra of pMSNs (black) and supernatant (red) of pMSNs which was obtained after centrifuging the pMSNs.

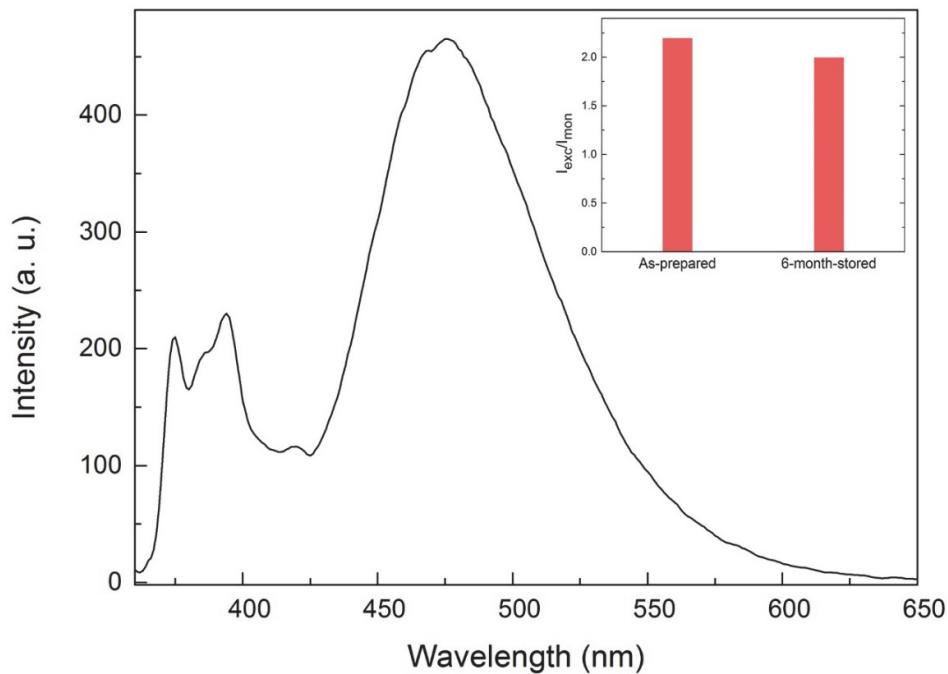


Fig. S4 Fluorescence spectrum of pMSNs which was stored for six months at ambient conditions. Inset shows the $I_{\text{exc}}/I_{\text{mon}}$ ratios of as-prepared and stored pMSNs.