

Supporting Information

Self-Assembled Porous Nanoparticles Based on Silicone Polymer with Aggregation-induced Emission for Highly Sensitive Detection of Nitroaromatics

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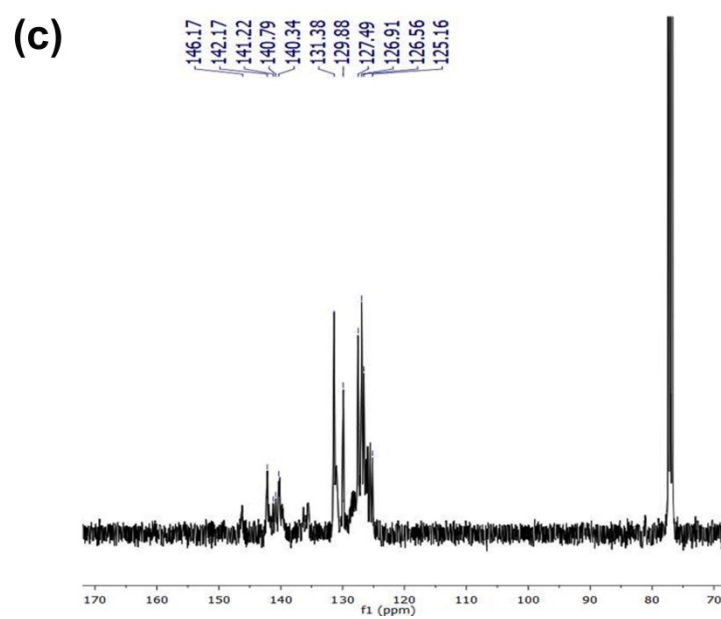
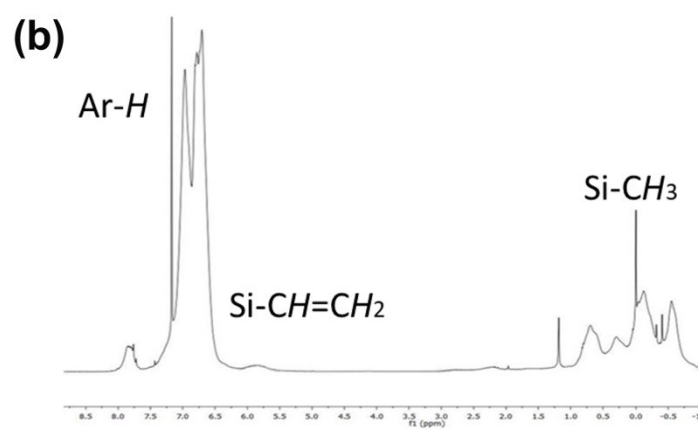
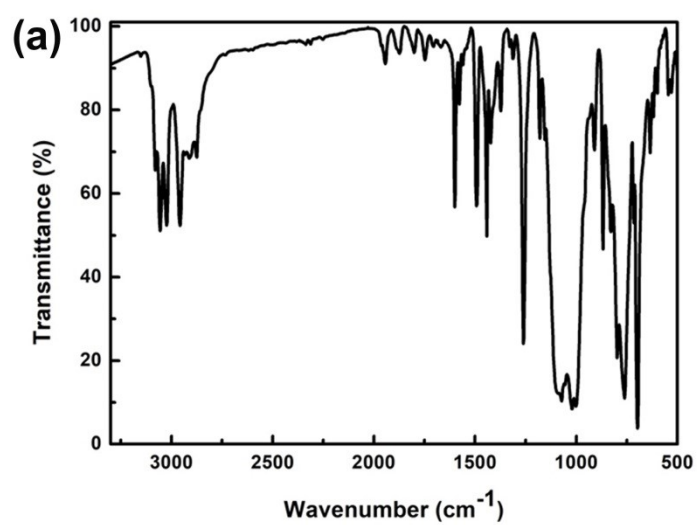


Figure S1. (a) The FT-IR, (b) ^1H NMR and (c) ^{13}C NMR spectra of TPB-P

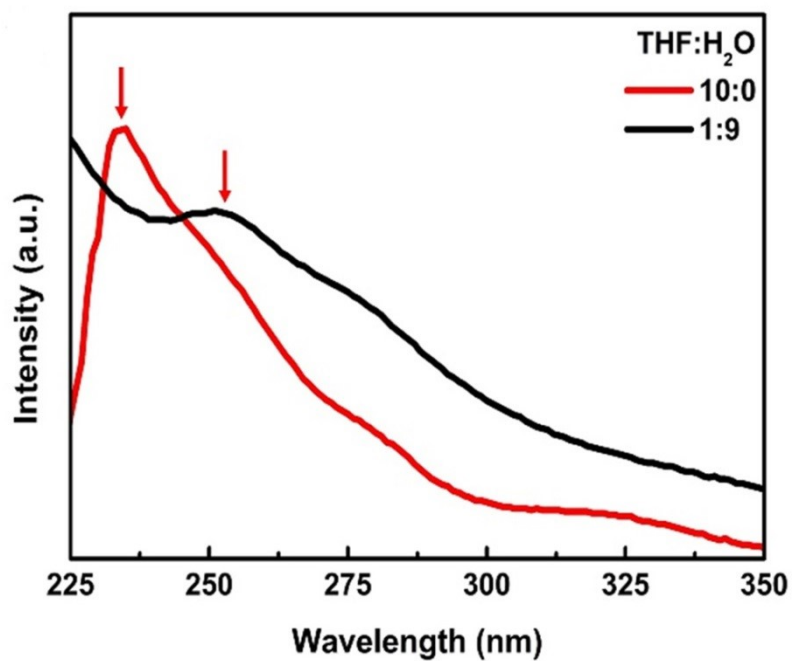


Figure S2. Absorption spectra of **TPB-P** in THF solution and THF/water (1:9) mixed solution

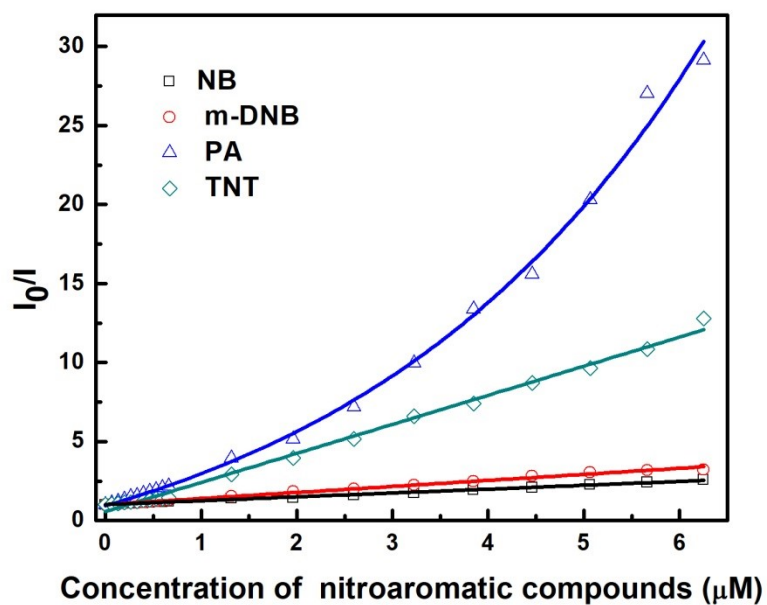


Figure S3. Corresponding Stern-Volmer plots of **TPB-P** nanoparticles in the presence of NB, m-DNB, TNT and PA

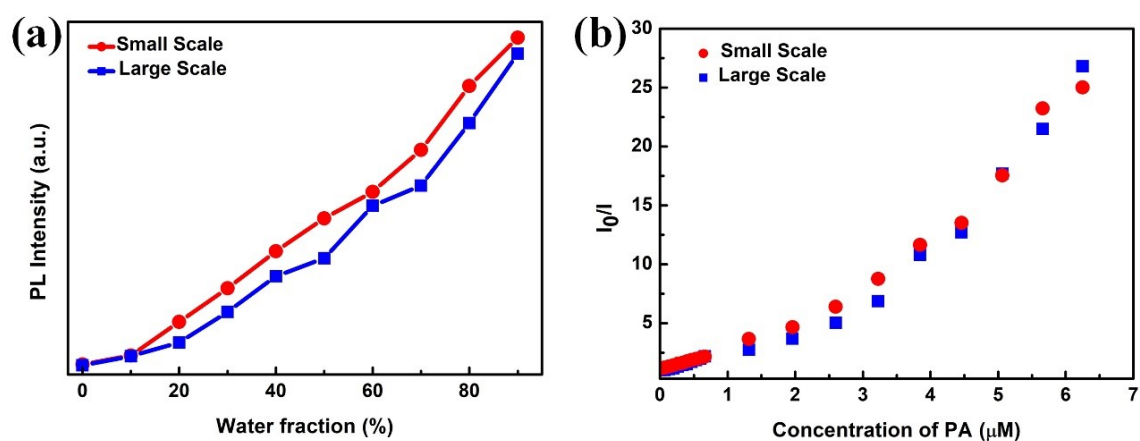


Figure S4. (a) Fluorescence intensities against water fractions and (b) Stern-Volmer curves in the presence of PA of small scale product and large scale product.

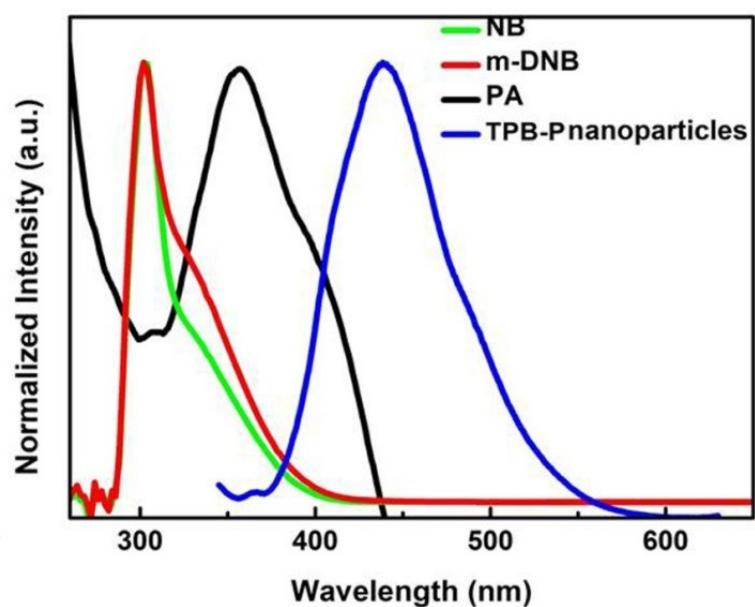
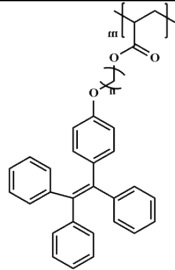
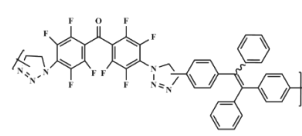
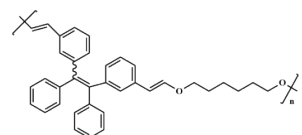
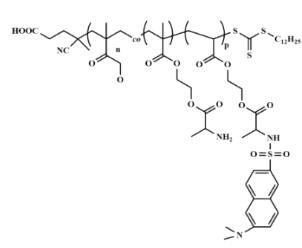
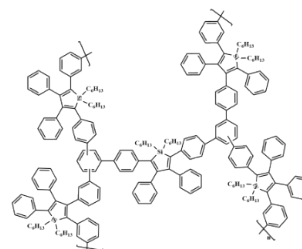
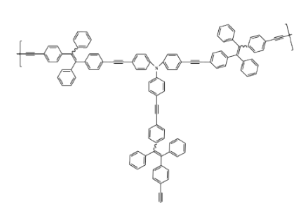
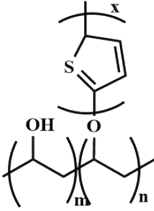
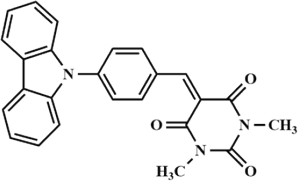
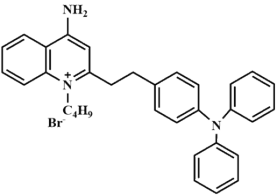


Figure S5. Fluorescence emission spectra of TPB-P nanoparticles and absorption spectra of NB, m-DNB and PA.

Table S1. LoD of PA sensors in references

Receptor	Analyte	Sensor state	Detecting system	Limit of detection (LoD, μM)	Ref.
	PA	Nanoparticle	THF/H ₂ O mixture (1: 9 v/v)	10.9	[1]
	PA	Nano-aggregate	THF/H ₂ O mixture (1: 9 v/v)	0.087	[2]
	PA	Nano-aggregate	THF/H ₂ O mixture (1:8 v/v)	21.8	[3]
	PA	Solution	THF	3.7	[4]
	PA	Nano-aggregate	THF/H ₂ O mixture (1: 9 v/v)	4.37	[5]
	PA	Nano-aggregate	THF/H ₂ O mixture (1: 9 v/v)	2.18	[6]

	PA	Nano-aggregate	DMSO/Ethanol mixture (1: 100 v/v)	0.12	[7]
	PA	Nanofibrous film	100% aqueous media	0.99	[8]
	PA	Solution	CH ₃ OH/ H ₂ O mixture (9: 1 v/v)	4.7	[9]
TPB-P	PA	Solution	THF	0.0178	This work
TPB-P	PA	Nano-aggregate	THF/ H ₂ O mixture (1: 9 v/v)	0.0048	This work

References

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