

Electronic Supplementary Information (ESI)

Photonic band gap effect and dye encapsulated cucurbituril triggered enhanced fluorescence using monolithic colloidal photonic crystals

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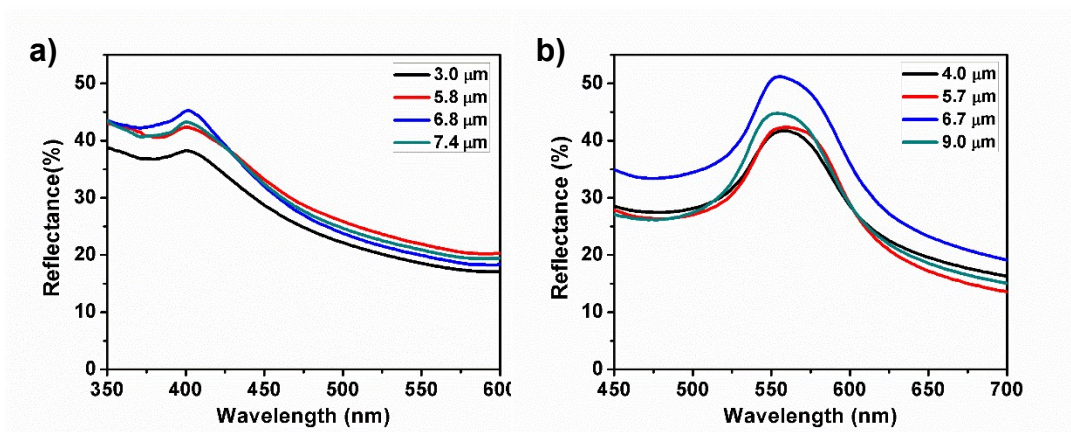


Fig. S1. Reflectance spectra of a) violet and b) green coloured CPC films with different film thickness

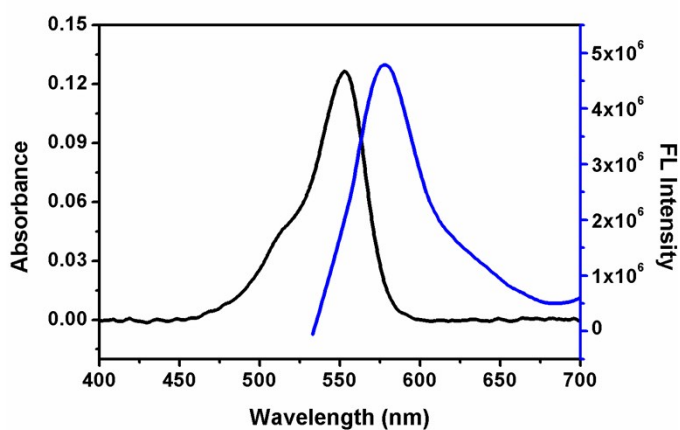


Fig. S2. a) Absorption and b) FL spectra of 10⁻⁶M aqueous RhB solution

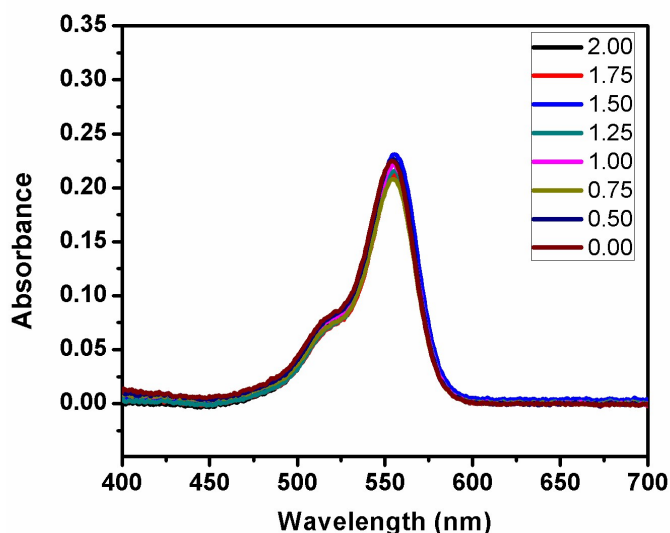


Fig. S3. Absorption spectra of 10^{-6} M aqueous solution of RhB in the presence of various molar ratio of CB7

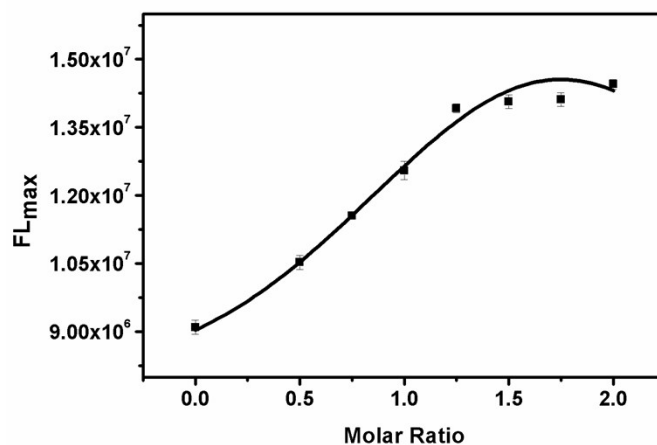


Fig. S4. FL maxima of 10^{-6} M aqueous solution of RhB in the presence of various molar ratio of CB7

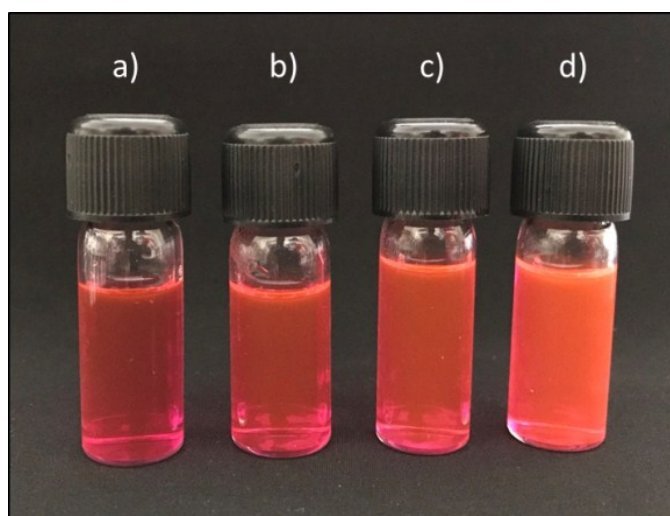


Fig. S5. Digital photographs of aqueous solution of RhB in the presence of various molar ratio of CB7. a) 0 b)0.5, c)1 d)1.5

Colour of PS CPC	Hydrodynamic Diameter (nm)
Violet	190
Green	255
Orange	297

Table S1. Hydrodynamic diameter of PS microsphere of violet, green and orange coloured CPCs

Colour of	Fluorescence
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PS CPC	enhancement factor
Violet	6
Green	7
Orange	10

Table S2. Fluorescence enhancement factor of methylene blue on violet, green and orange coloured CPCs

	T_1 (ns)	T_2 (ns)	T_3 (ns)	T_{Av} (ns)
RhB on PS film	37.17 (49.92)	37.01 (50.07)	-	37.09
CB-RhB₃On PS film	71.36 (37.19)	75.86 (12.83)	72.56 (49.98)	72.52

Table S3. Fluorescence life-time T_i , relative percentage (in parenthesis) and average life-time T_{Av} of RhB and CB-RhB₃ on planar PS film