

Supplementary Tables

Table S1 The relation between the dosage of reactants and SiO₂ diameters

Number	Water (mL)	Anhydrous ethanol (mL)	Ammonia (mL)	TEOS (mL)	Average particle size of SiO ₂ (nm)
1	24.75	61.75	2.25	4.5	172
2	24.75	61.75	4.5	4.5	450
3	24.75	61.75	9.0	4.5	495
4	24.75	61.75	13.5	4.5	551
5	24.75	61.75	4.5	9.0	511
6	24.75	61.75	4.5	13.5	612
7	24.75	61.75	4.5	18	806

Table S2 The comparison between the theoretic λ_{\max} and experimental λ_{\max} of PCs

SiO ₂ sizes (nm)	232	281	304	323	356
Theoretic λ_{\max} (nm)	538	652	705	750	826
Experimental λ_{\max} (nm)	558	662	707	757	842
Relative error	3.58%	1.51%	0.28%	0.92%	1.90%

Supplementary Figures

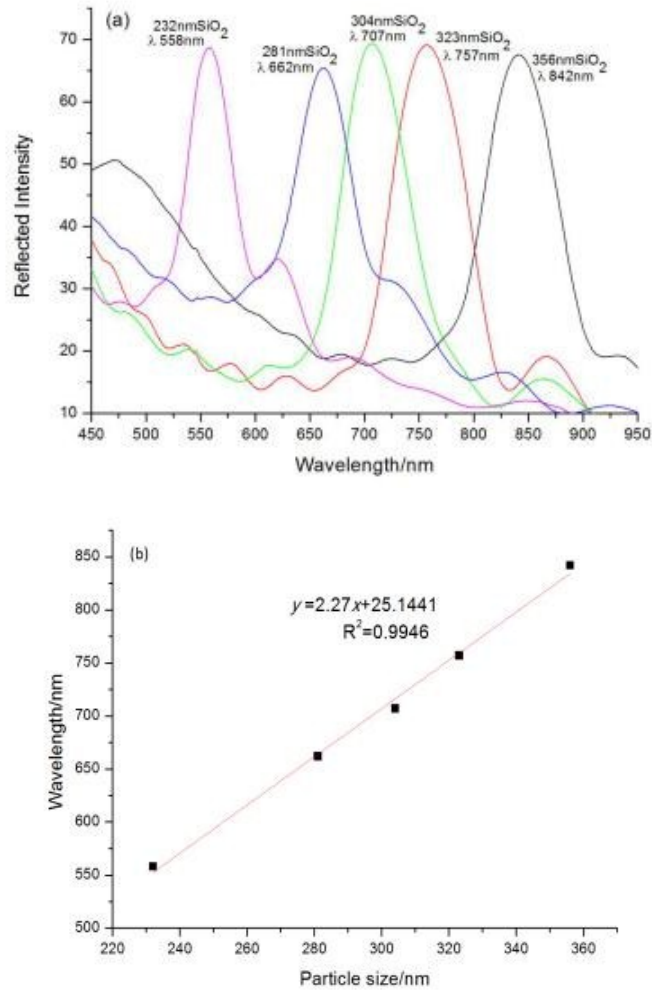


Fig. S1 (a) Diffraction spectrum of PCs; (b) The calibration curve between λ_{\max} of diffraction peak and particle size of SiO₂.

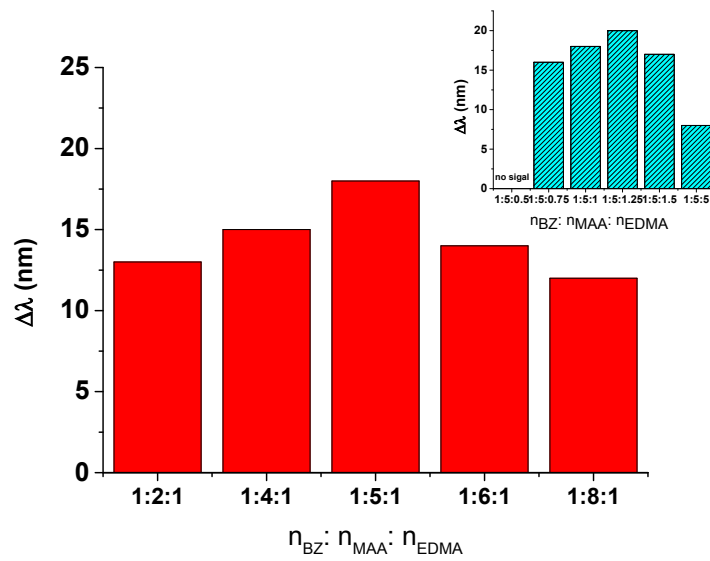


Figure S2. Effect of molar ratio of imprinted molecule, functional monomer and

crosslinker on optical diffraction of MIPC