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Supporting Information

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Hybrid Mesoporous Colloid Photonic Crystals Array for High Performance Vapor Sensing†

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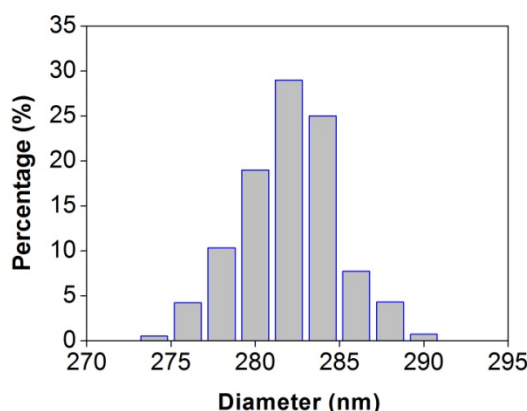


Fig. S1 Particle size distribution of MSNs chosen for fabrications of PCs. The mean diameter of the MSNs was 283nm, and the CV was 4.2 %, determined from measurement of more than 100 particles in several TEM figures.

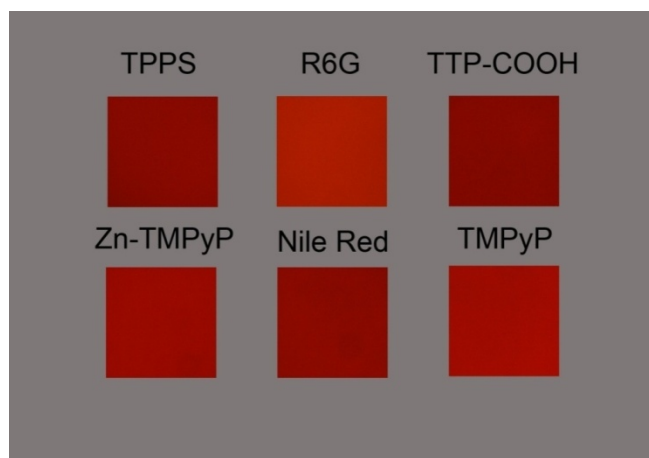


Fig. S2 Fluorescence images of MCPC sensor array.

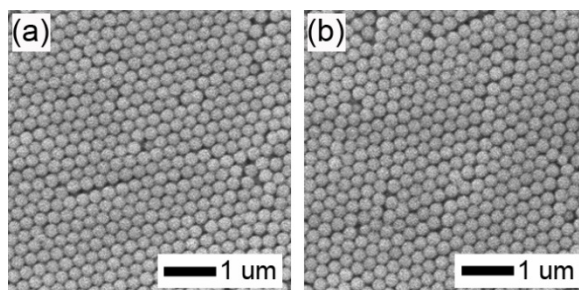
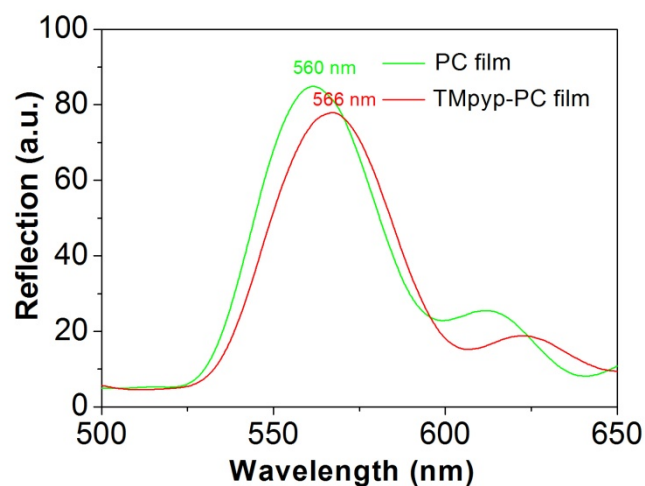


Fig. S3 Comparing SEM figures of MSNs PC films before and after modification. 4a: before modification, 4b: after modification.



5 Fig. S4 Comparing Reflection spectra of MSNs PC films before and after modifications in N_2 .

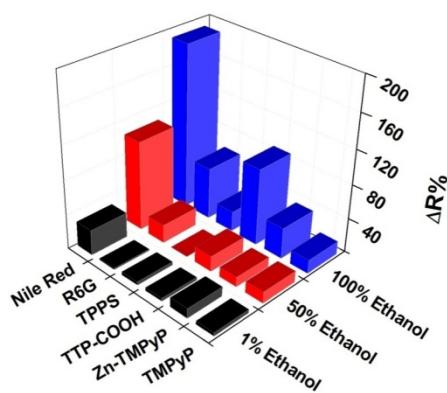


Fig. S5. Average response of three trials of the sensor array to ethanol vapors at different partial pressures at 298K.

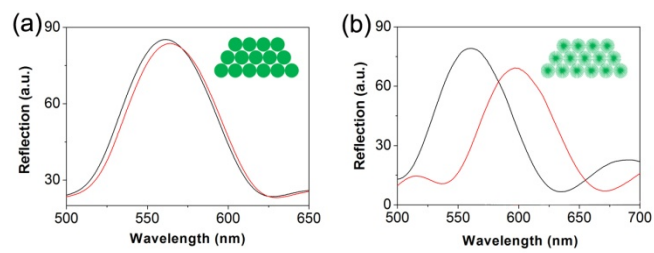


Fig. S6 Comparing wavelength shifts of solid PC film and MCPC film upon exposure to saturated ethanol. (a) solid PC film, (b) MCPC film.