Supplementary Information for

**Porous organic/inorganic hybrid one-dimensional photonic crystals for rapidly visual detection of organic solvents**

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![Graph](image1)

**Fig. S1** Particle size distribution (vol %) of the P(MMA-AA-EGDMA) microemulsion (red line filled with circles) and TiO₂ sol (black line filled with square);

![Images](image2)

**Fig. S2** Photographs of the polymer microemulsion (a) original state, (b) after one month and (c) after three months.
**Fig. S3** Relation between the maximum reflectance wavelength of 1DPC sensor and responsive time in (a) acetone and (b) chloroform.

**Fig. S4** SEM images of (a) polymer layer before immersing in acetone; (b) polymer layer after immersing in acetone; (c) TiO\(_2\) layer before immersing in acetone; (d) TiO\(_2\) layer after immersing in acetone.

**Fig. S5** Recycle detection test of the 1DPC sensor in 60% ethanol aqueous solution.

**Fig. S6** Color variation of 1DPCs soaked in different concentration (a) alcohol solution (0%, 40%, 70%, 100%) and (b) acetone-water mixtures (0%, 20%, 70%, 100%).