

## Nanoporous polymeric photonic crystals by emulsion

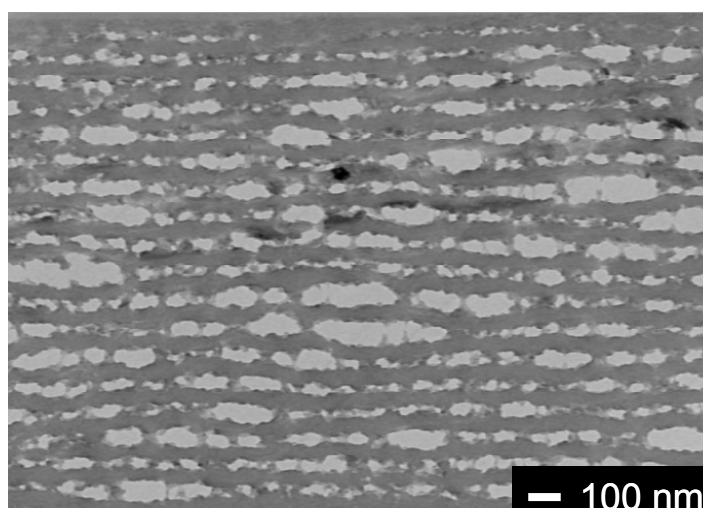
### holography

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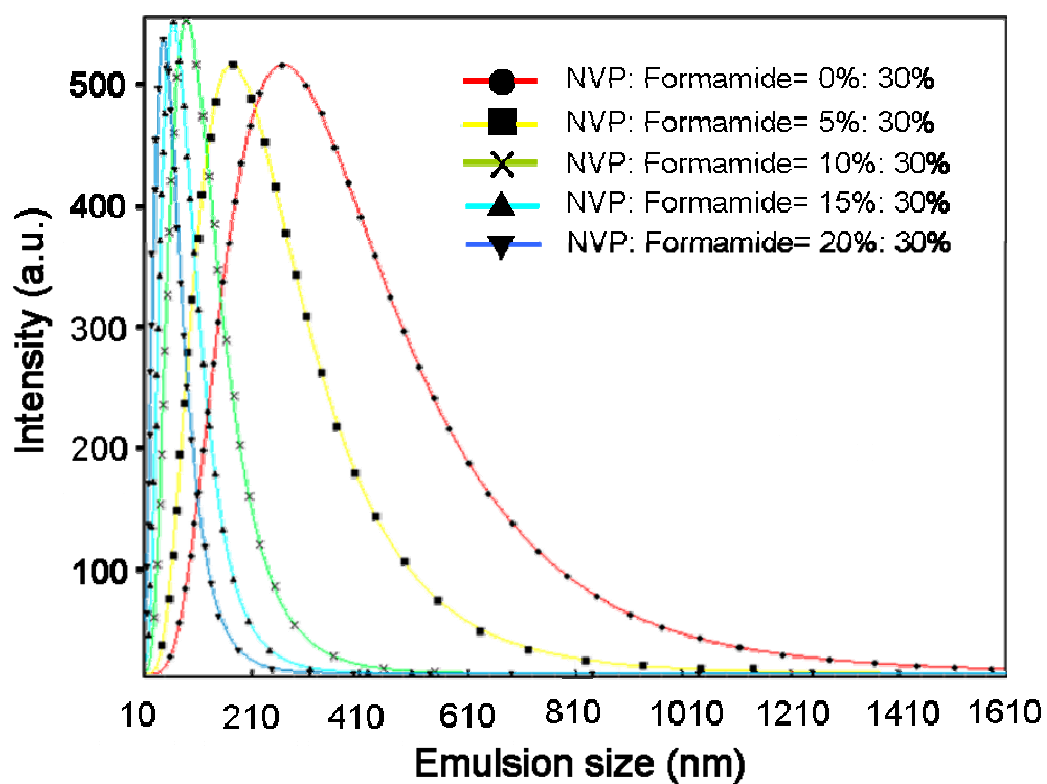
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#### Supporting information

Fig. S1 shows the cross-sectional morphology of a sample fabricated without adding surfactant to the photopolymer syrup. The TEM images show that the sample possesses discrete and sponge-like void domains (lighter areas in the micrograph). In addition, we have observed closely spaced non-spherical polymer domains (darker grey areas in the micrograph). The void domains ranged from ten to one hundred nanometers. clearly demonstrates the stabilizing effect of the surfactant.



**Fig. S1** Cross-sectional TEM images of a fabricated film. The light areas are voids and grey areas are polymer matrix. The sample was holographically fabricated at fixed composition of 15 wt% NVP and 30 wt% formamide without surfactant.



**Fig. S2** The size distribution of formamide emulsions with varying NVP concentration, as determined by DLS.