Radially aligned microchannels prepared from ordered array of

cracks on colloidal films

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Electronic Supplementary Information

Fig. S1. Optical microscope images of crack patterns which was prepared by different concentration of SNPs dispersion. The concentration is 22 mg/mL (a), 44 mg/mL (b), 88 mg/mL (c), 175 mg/mL (d) and 350 mg/mL (e). These images showed that concentration of SNPS dispersion significantly influence the formation of cracked colloid film.



Fig. S2. SEM images of SNPs cracks which was detached into pieces of monoliths. (a) and (b):

The surface of cracks with different magnification. (c) and (d): The transverse cracks of SNPs.



Fig. S3. SEM image of the ordered array of cracks on the bottom side of the polymcolloidal film

before corrosion.



Fig. S4. SEM image of V-type microchannels of uncoated side of the polymer/colloidal film after

corrosion.



Fig. S5. SEM image of V-type microchaanel on polymer/colloidal film. Which showed that the cracks turned into microchannel after corrosion, and the depth of microchannels becomes much smaller than that of cracks



Fig. S6. SEM image of polymer/colloidal film. It can be saw from the picture that one side of the

film is honeycomb structure and the other side is microchannels.