

(Electronic Supplementary Information)

Self-organized pattern formation of cracks perpendicular to the drying direction of a colloidal suspension

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Captions for Electronic Supplementary Information

Movie S1 Movie file of the formation of the silica colloidal film in Fig. 2. One second in the movie corresponds to 300 s in observation time.

Movie S2 Movie file of “mirror image” observation shown in Fig. 7. One second in the movie corresponds to 100 s in observation time.

Movie S3 Movie file of observation of standing capillaries from transverse direction shown in Fig. 9. One second in the movie corresponds to 150 s in observation time.

Movie S4 Movie file of the formation of the sample in Fig. 8a. One second in the movie corresponds to 300 s in observation time.

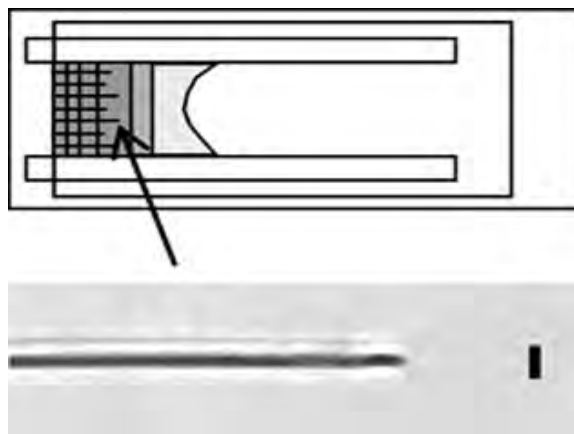


Fig. S1 Schematic illustration of the cracks in glass cell (top) and transmission microscope image of a crack tip, which is parallel to the drying direction (bottom). The vertical scale bar in the bottom image is 10 μm . The arrow indicates the crack position we observed. We used a confocal microscope (TCS-SP2, Leica) with Ar^+ laser (488 nm) as a light source.

Keywords for all files to tag

Silica colloids, perpendicular crack formation, directional drying, deformation of glass cell, self-organized pattern formation, generation of negative pressure,