Electronic supplemental information (ESI)

Drying-induced back flow of colloidal suspensions confined in thin unidirectional drying cells.

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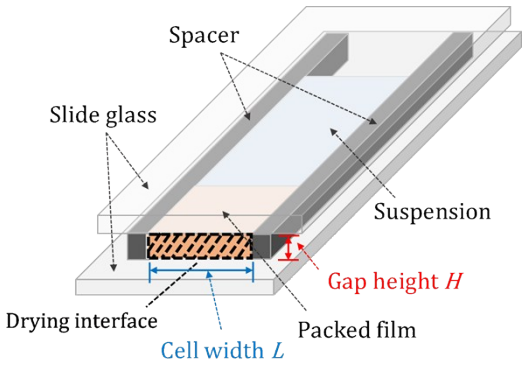

Fig. S1 Schematic illustration of a unidirectional drying cell (a Hele-Shaw cell). Two parallel silicon rubber spacers were set between two slide glasses. Colloidal suspension was introduced into the narrow gap space. Water spontaneously evaporated at the tip of the cell (denoted as "Drying interface" in the figure), and packed film gradually grew from the interface to the suspension.

The information of video files in the ESI were as follows,

Movie 1 Movie for transmission microscope images in Fig. 1. One second in the movie corresponds to 1500 s in real time.

Movie 2 Movie for fluorescent images in Fig. 1. One second in the movie corresponds to 1500 s in real time.

Movie 3 Flow of a colloidal suspension at a height position of 40 μm above the bottom of the cell. Diamter of particles was 45 nm and the gap height was 100 μm. Fluorescent observation was used for observation. One second in the movie corresponds to 5 s in real time. The observed height position was denoted as "A" in Fig. 2a.

Movie 4 Flow of a colloidal suspension around the bottom of the cell. All conditions were the same as in Movie 3. The observed height position was denoted as "B" in Fig. 2a.