Electronic Supplementary Material (ESI) for Soft Matter.

Active Particles Alter the Growth Dynamics of Coffee Rings
Supplementary Figures

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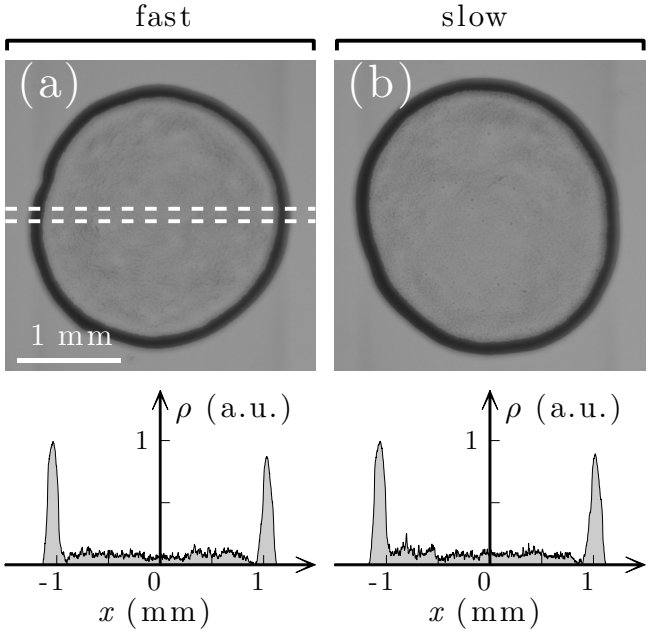
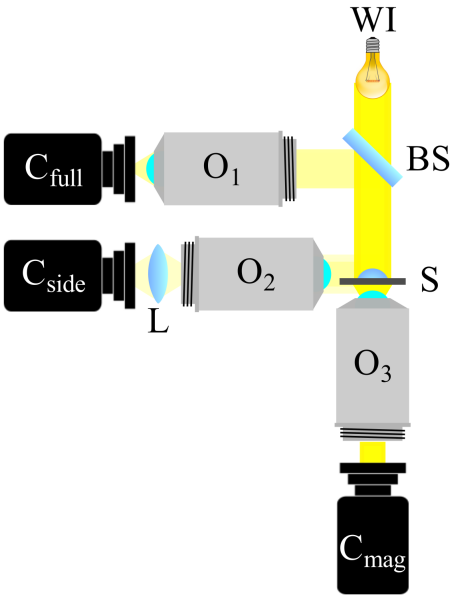
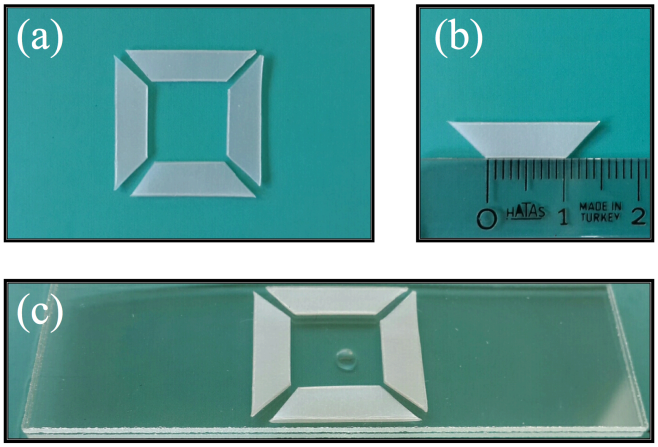


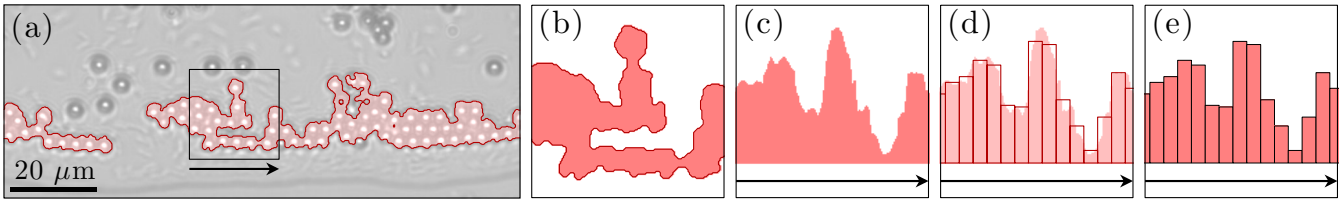
SUPPLEMENTARY FIG. 1. **Stain left after evaporation by polystyrene particles suspended in water.** Stains left behind by a droplet containing polystyrene (PS) particles suspended in water after (a) fast evaporation ($\approx$ 5 minutes) and (b) after slow evaporation ($\approx$ 30 minutes). PS particles in water leave a standard coffee ring stain, which does not change appreciably between fast and slow evaporation.



SUPPLEMENTARY FIG. 2. **Schematic of the experimental setup.** The experiments were performed on a home-build inverted microscope capable of imaging full view, magnified view and side view of the evaporating droplet by digital video microscopy separately and simultaneously. The magnified view of the evaporating droplet (S) near to the contact line was imaged using a microscope objective (40x, NA = 0.65) on a monochrome CMOS camera with an acquisition rate 5 fps (C_{mag}). The full view of the evaporating droplets was imaged using a microscopic objective (4x, NA = 0.13) pointing toward the CMOS camera whose magnification corresponds to $\approx$ 1.6x (C_{full}). For the side view, another microscopic objective (10X, NA = 0.30) and a convex lens with the focal length (f = 35 mm) were used with the CMOS camera (C_{side}). For illumination, an incoherent white light lamp is directly projected onto the deposited droplets.



SUPPLEMENTARY FIG. 3. **Details of the chamber for slow evaporation.** (a) Elements of Parafilm layers cut to form the walls of the chamber. (b) Detail of the dimension of the internal edge of one wall element of the chamber. (c) Wall elements fixed to the glass slide, and droplet placed inside at the beginning of an experiment.



SUPPLEMENTARY FIG. 4. **Procedure to obtain the height of the boundary in a given frame.** (a) From a frame we isolate the region constituting the external boundary (red-shaded area). The procedure to determine the height of the boundary for the region enclosed in the black inset in (a) and shows as magnified view in (b), is the following: (c) We obtain the boundary profile by counting the number of pixels belonging to the boundary for each column of pixels along the horizontal axis of the image. (d) We section this profile in slices of 10 pixels width, corresponding, in our case, to 1.5 μm, i.e., the radius of a PS particle. For each slice, we calculate the height of the rectangle in such a way that its area is the same as the area of the corresponding profile slice. (e) We proceed with further analysis representing the boundary isolated in each frame by this set of rectangles. The black arrow in panels (c-e) is a reference for the horizontal position, and corresponds to the black arrow in panel (a).