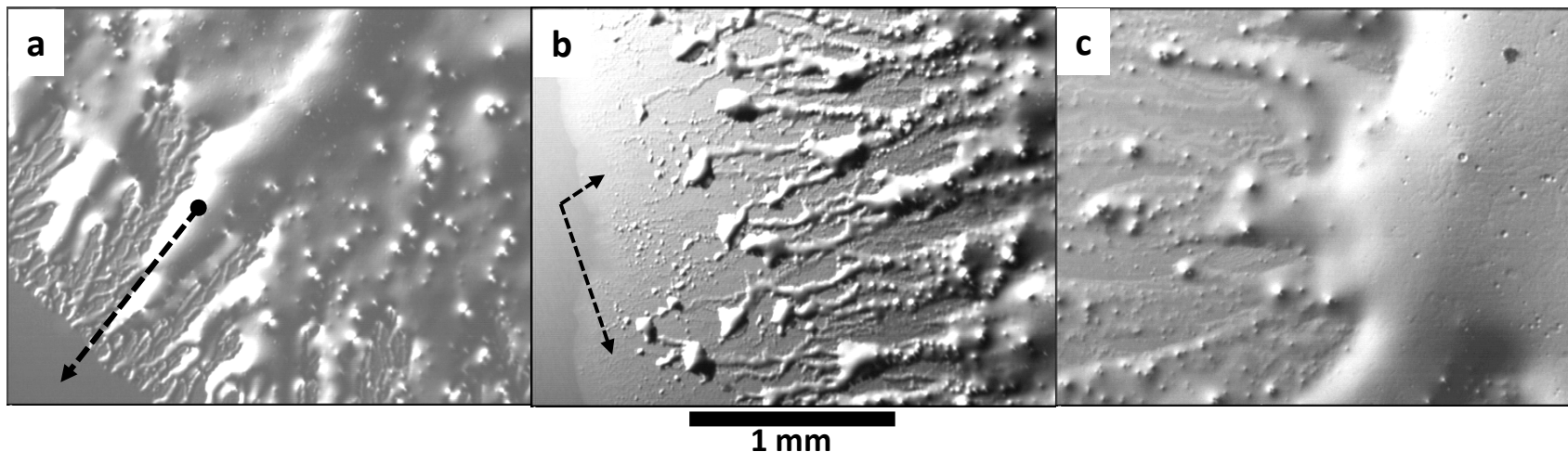


## Supplementary Information S3



Complementary “under-oil” experiment on hydrophobized Si wafer showing, in **a**) the propagating wetting front (arrow) in the early strong spreading phase, **b**) the two distinct domains of precursor film (lighter area shown by arrows) extending ahead of the cylinder-shaped structures, and **c**) the transition between the structures and the thicker residual fluid domain remaining at the center of the deposited drop. Note that in both cases (images), the drop is always spreading (advancing) and never on retraction as is systematically the case in tubulation experiments on solvent-cleaned Si.

The configuration of the experiment was identical to those studied in the paper, with a aqueous DDAB drop of 0.3 wt%, in a surrounding 50% vol. mixture of  $C_{12}$ - $C_{16}$  n-alkane oils.