

Supporting Information

Substrate-Dependence of the Freezing Dynamics of Supercooled Water Films: A High-Speed Optical Microscope Study

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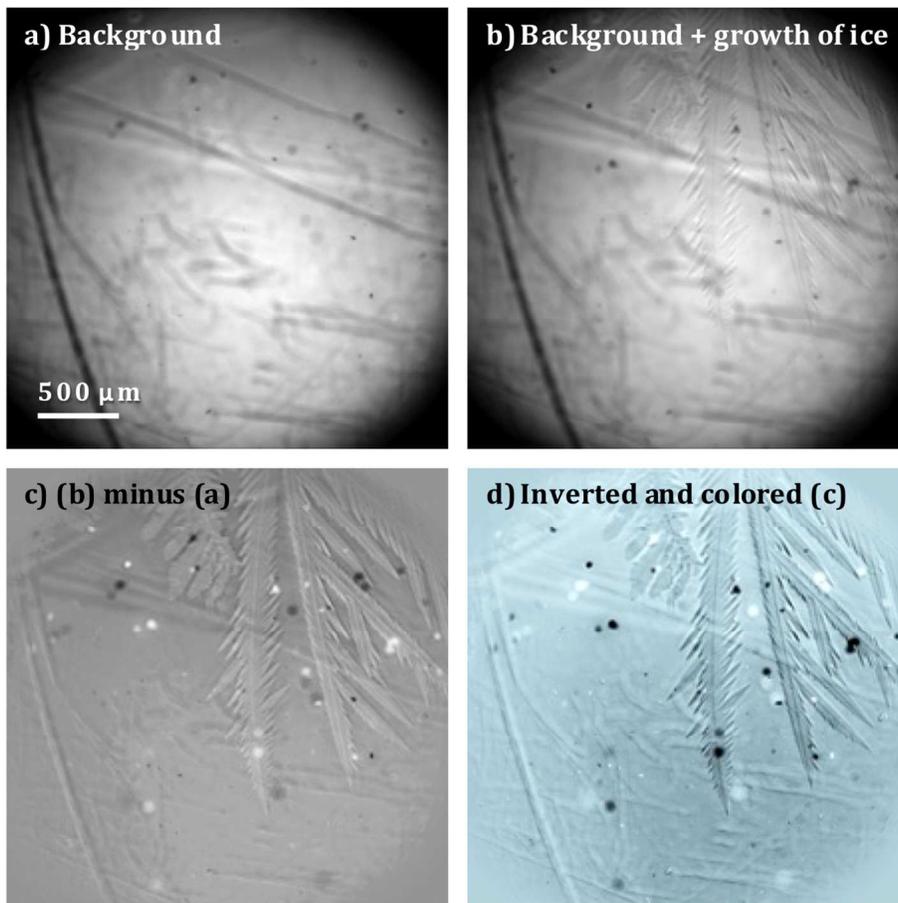
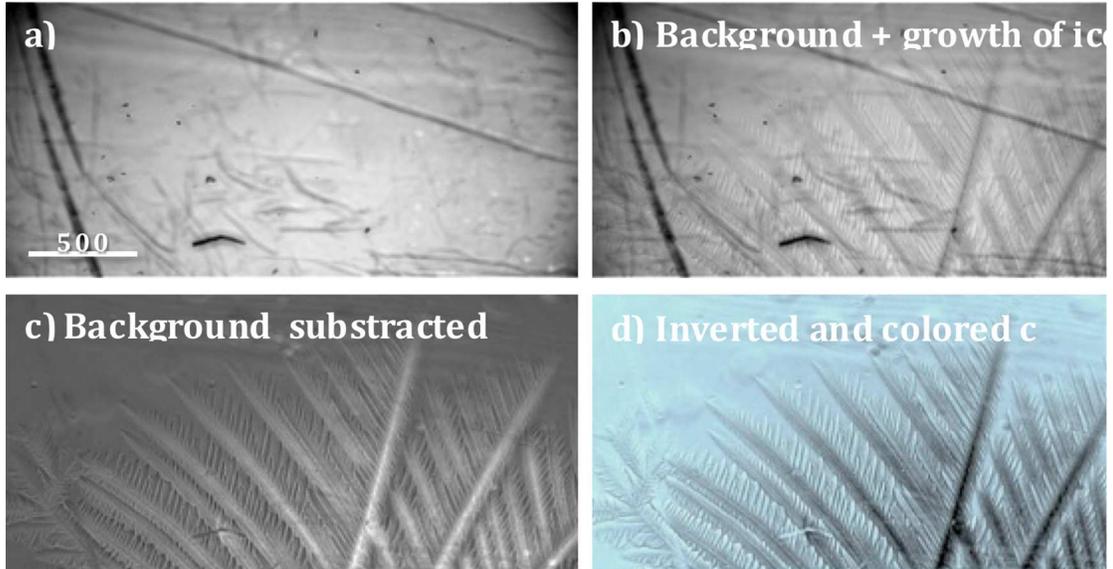


Figure S1: Two examples of the image processing used in this work for a freezing experiment on mica. a) Background image before freezing. Mica steps and defects of the gold coating at the backside can be observed in the image. b) Original images with dendrites growing. c) Background subtracted from the original images. d) Some images are inverted for a better contrast and finally colored with cyan tones. Dark or white spots appearing in the final images correspond to bubbles or impurities that moved during the freezing.

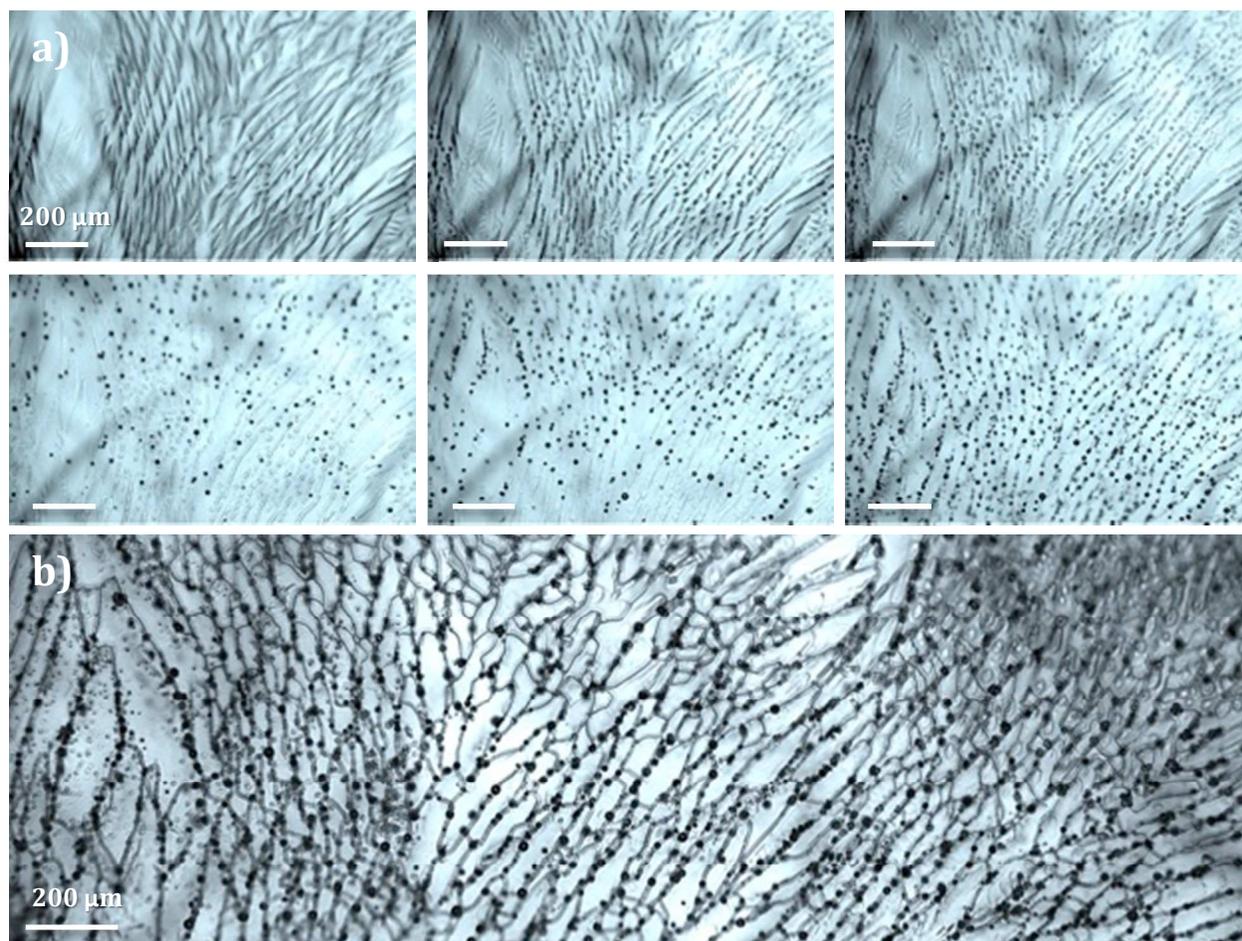


Figure S2: a) Sequence of images showing air bubbles (dark dots) trapped inside the ice as the dendrites form ice domains and these grow vertically. b) Air bubbles are trapped in the ice domain boundaries (original images, only colored).

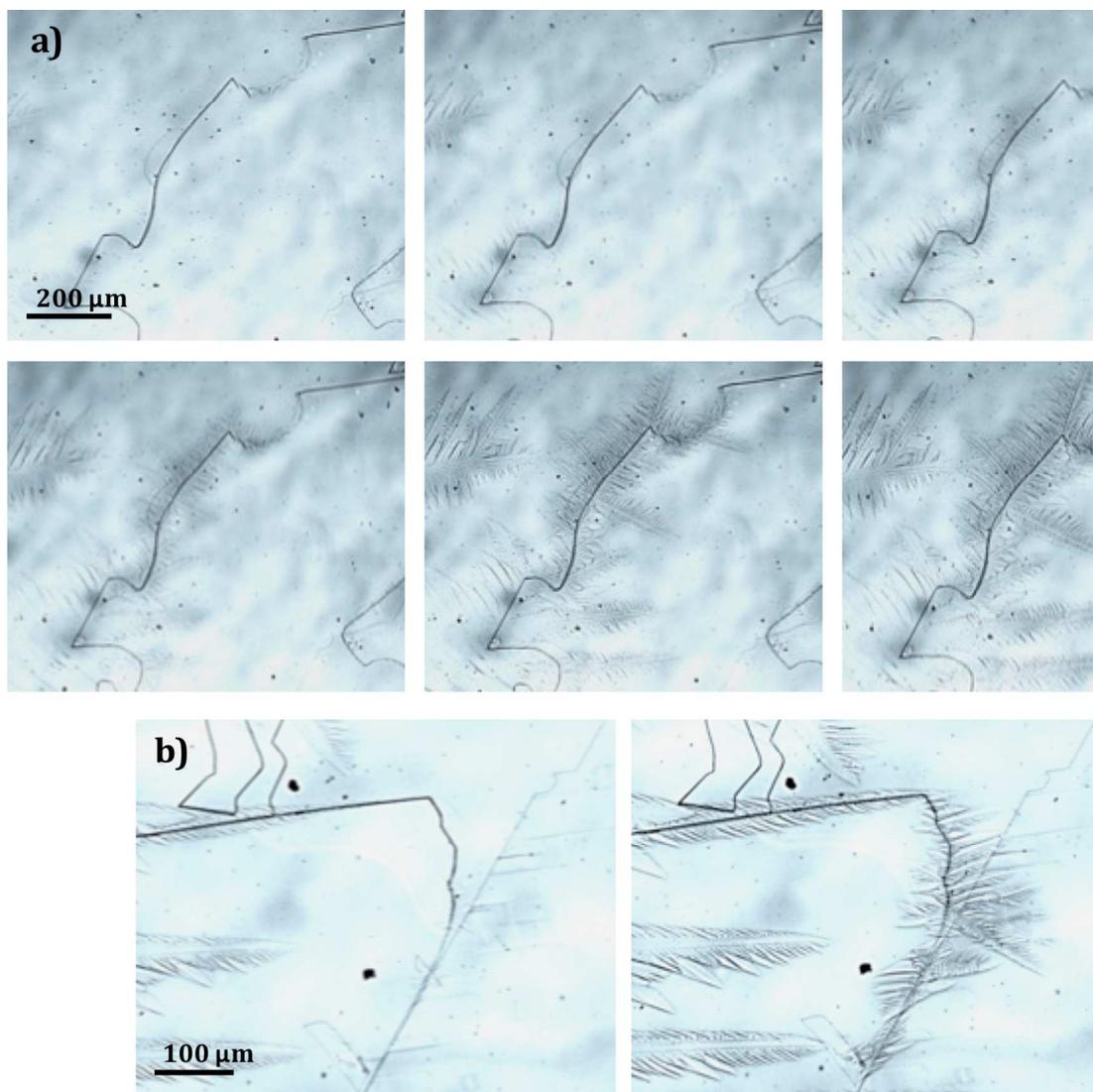


Figure S3: a) and b) Two sequences of images showing faster growing of dendrites along a step on the mica surface (original images, only colored).