

Supporting Information

Pores dominate ice nucleation on feldspar.

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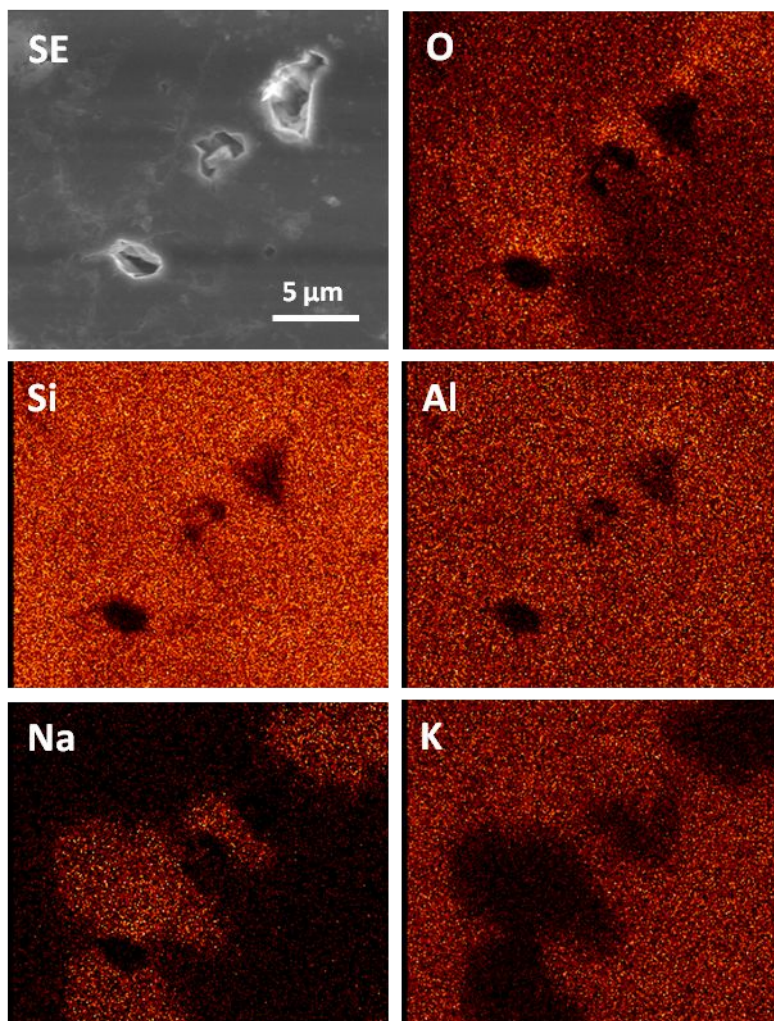


Figure S1: EDAX images of the distribution of O, Si, Na, Al and K around three pores showing ice nucleation activity.

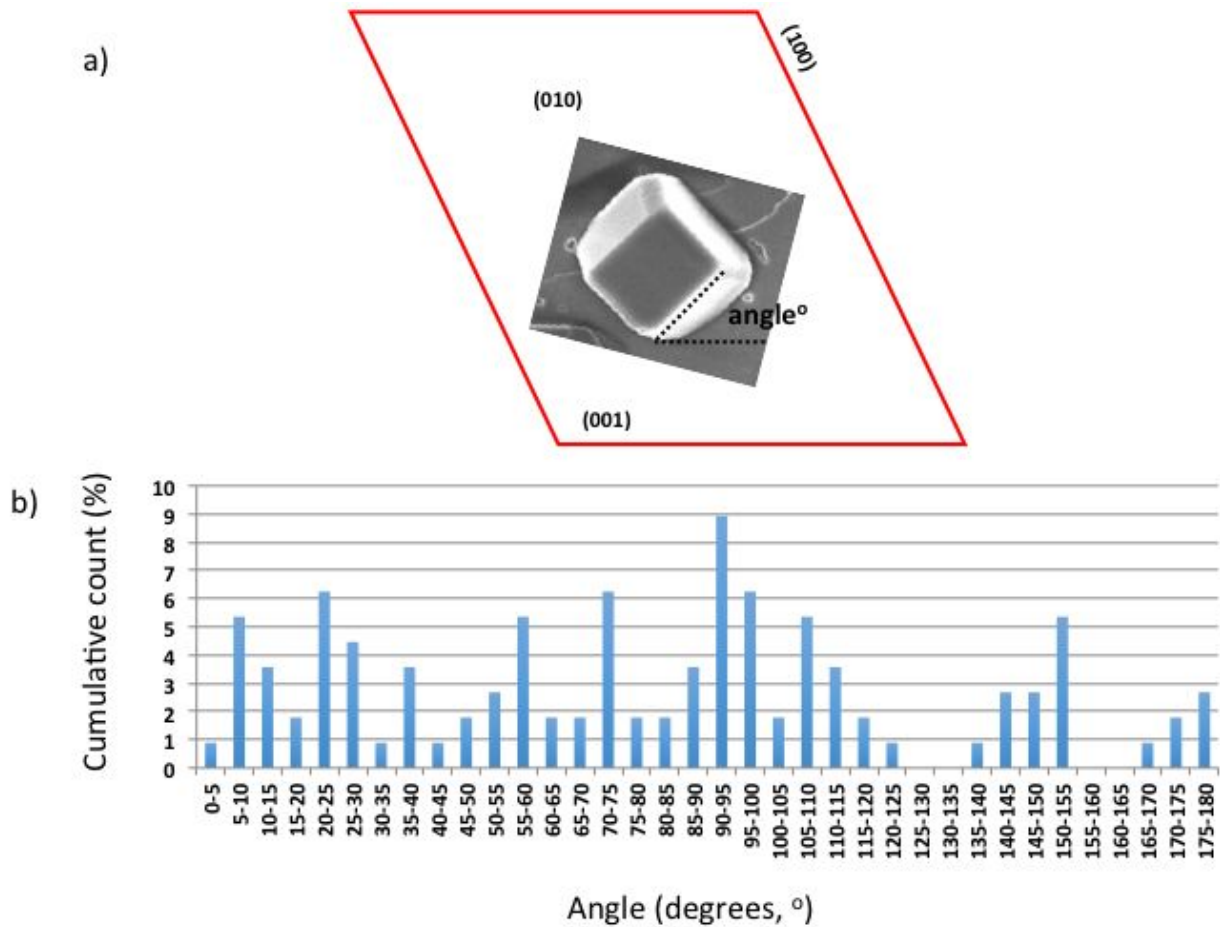


Figure S2: a) Scheme of the orientation analysis of ice crystals showing its basal plane approximately perpendicular to the (010) face of the feldspar crystal. Angles were measured with respect to the (001) direction. b) Histogram showing the statistical analysis of the angles measured. No preferential orientation was observed contrary to what's observed for crystals showing its basal plane parallel to the feldspar (010) face.

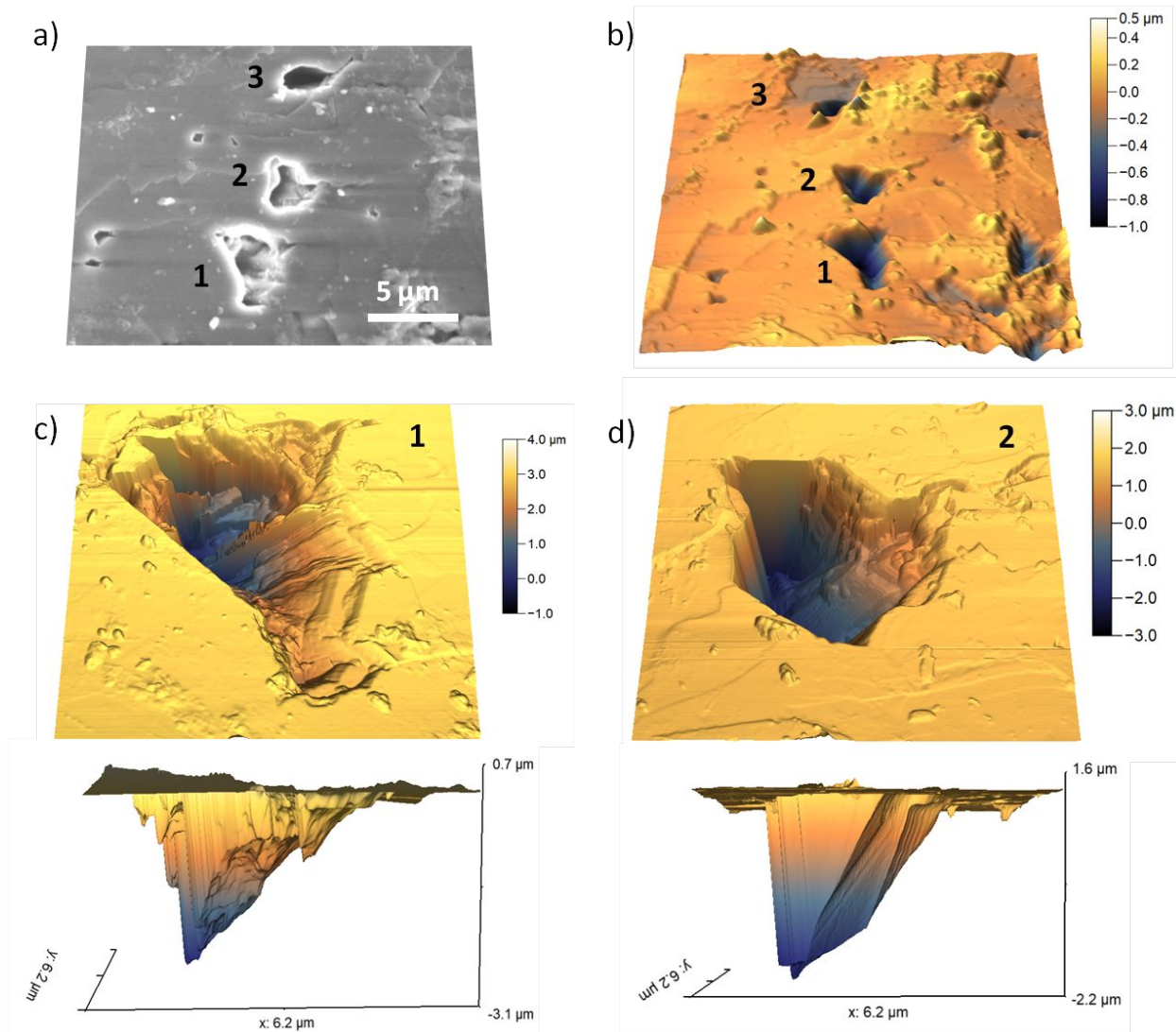


Figure S3: a) SEM image of two pores that showed consistently nucleation events on several consecutive nucleation cycles. b) AFM image taken using a standard AFM probe of the same region. c) and d) AFM images of the pores are showed in both, a quasi-planar and profile three-dimensional rendering. Ultra-sharp with high-aspect ratio AFM probes were used in those images to minimize convolution of the tip with the

walls of the pore. Images revealed that the pores were very deep, showing an aspect ratio vertical to horizontal of approximately 1:1.