

Figure S1 Microprobe analysis of the magnesium distribution in the hillock structure via a 50-cycle extraction. Here only 35 cycles out of the 50 cycles were displayed.

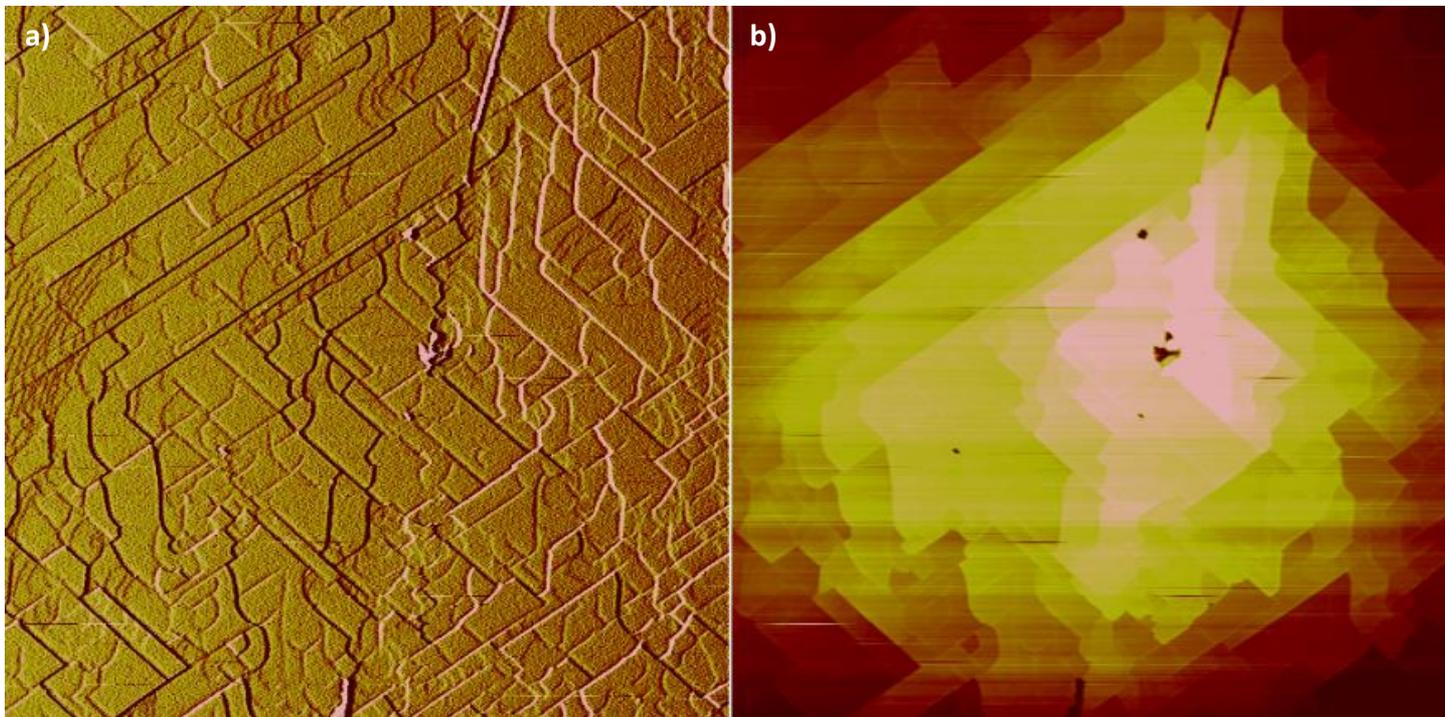


Figure S2. The surface relief (b) for the segmented hillock at the high- $\Omega_{\text{calcite}}$ , high-Mg/Ca condition reveals that the original apex of the hillock remains the highest plateau.