

Supporting Information for “Snow equi-temperature metamorphism described by a phase-field model applicable on micro-tomographic images: prediction of microstructural and transport properties”

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Introduction

This document includes representations of simulation steps of the equi-temperature metamorphism model Snow3D applied to 4 different micro-tomographies of snow. The input snow sample information can be found in Table 2.b of the article. The figures below are extracted from Figure 5 of the article and present a closer view for the reader to appreciate the different shapes and curvatures of the 3-D volumes. 3-D views and vertical slices taken at the center of each cube are presented at the initial, intermediate and final stage of the simulated series named respectively Grad3, 7G9m, TG2 and I17.

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Concave surfaces are shown in green, convex surfaces in red and flat surfaces in yellow in the 3-D views. The ice phase is colored in yellow and the air phase in gray in the slice representations. Each black scale bar represents 1 mm.

Grad3

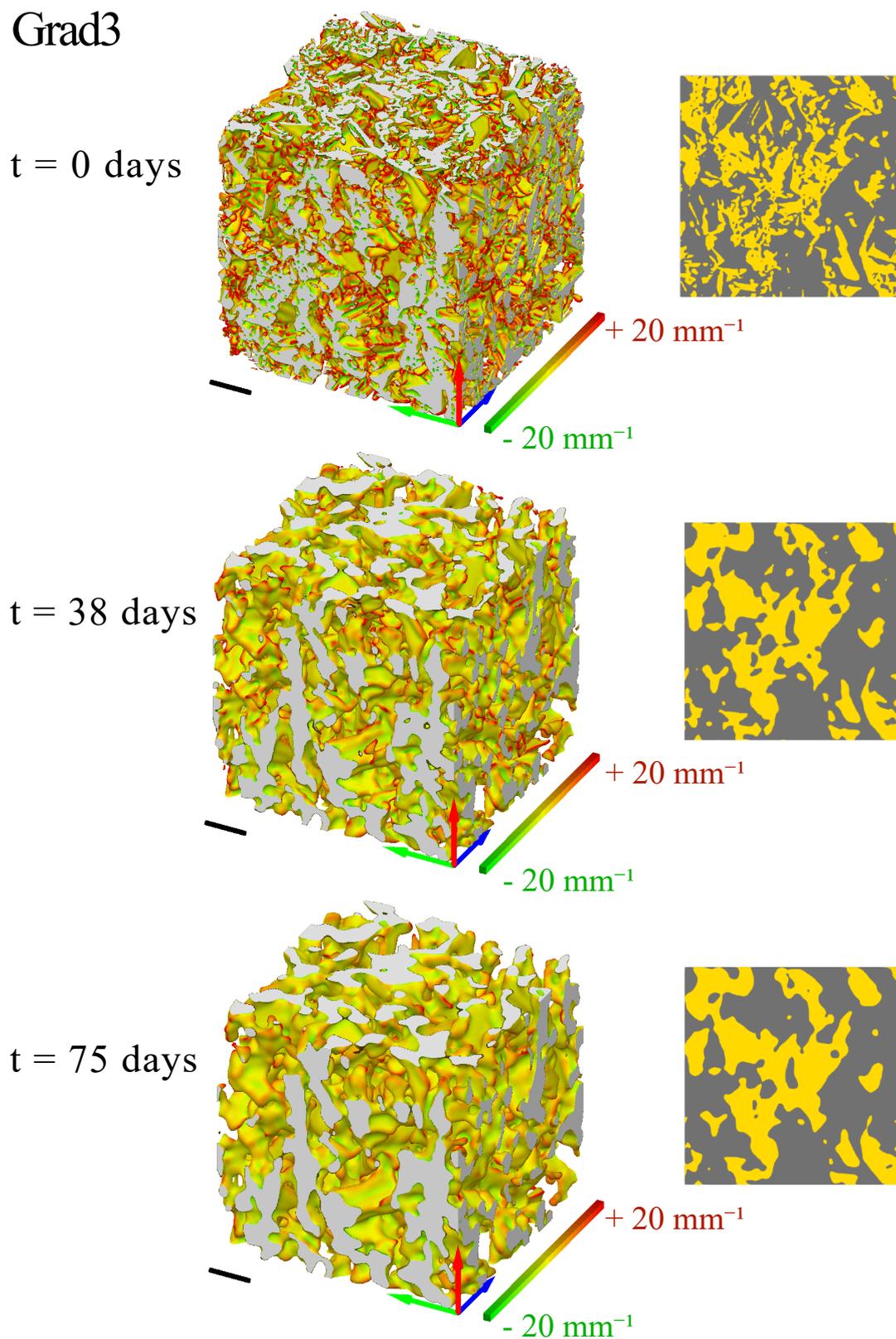


Figure S1. Close view of the initial, intermediate and final stage of the simulated series Grad3 with 3-D views and vertical slices taken at the center of each cube.

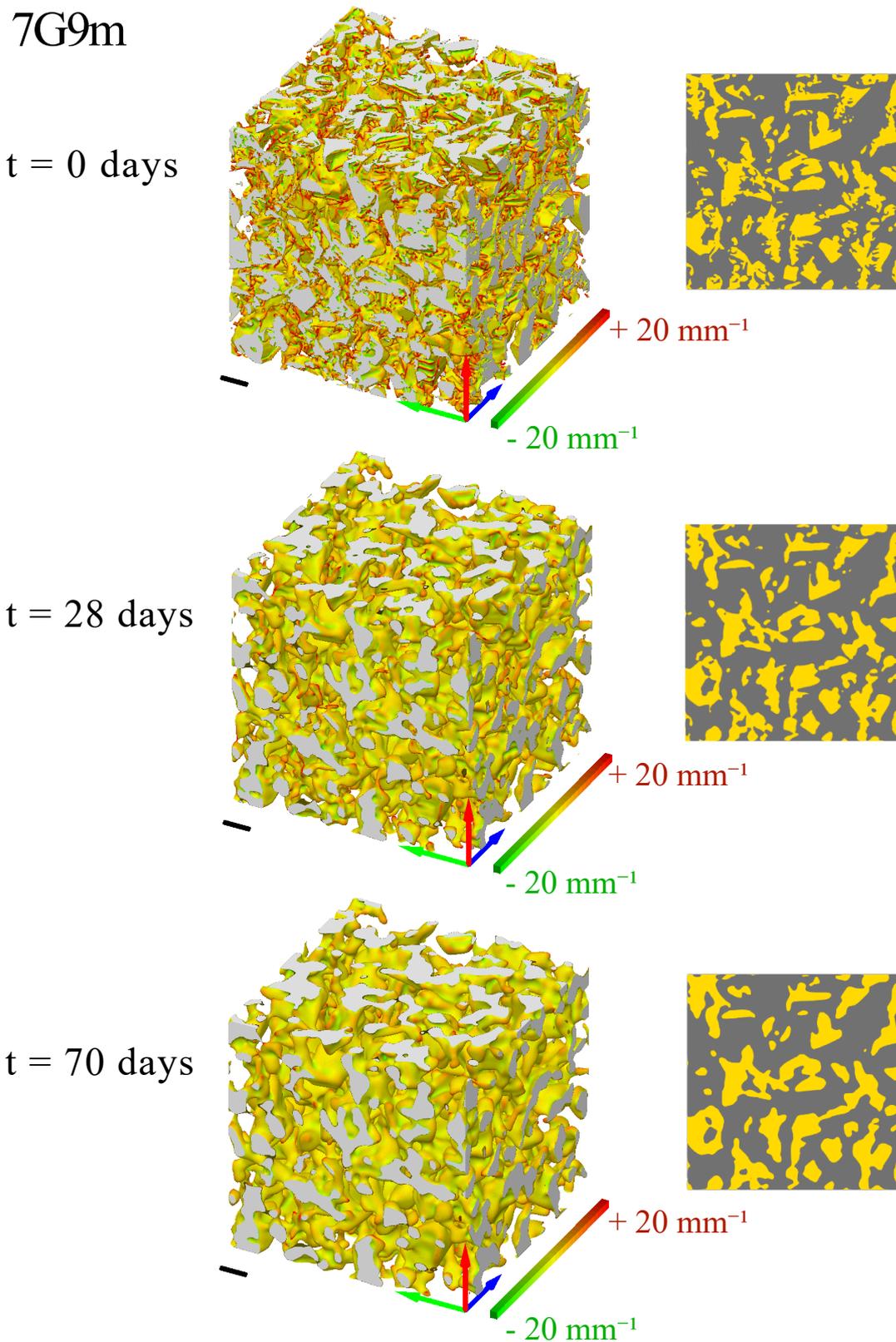
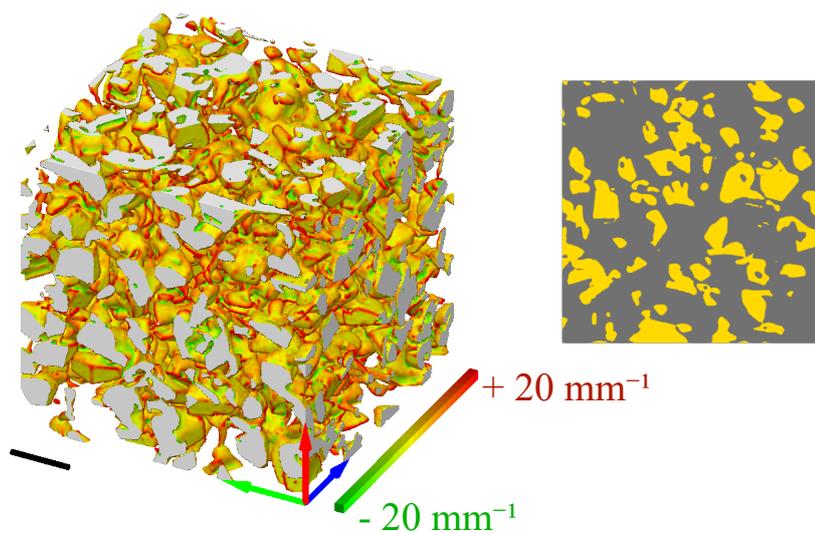


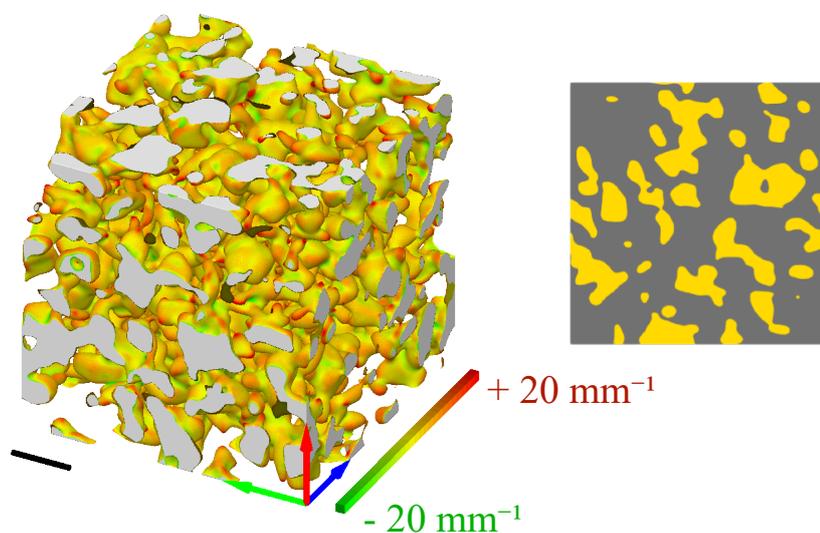
Figure S2. Close view of the initial, intermediate and final stage of the simulated series 7G9m with 3-D views and vertical slices taken at the center of each cube.

TG2

t = 0 days



t = 38 days



t = 75 days

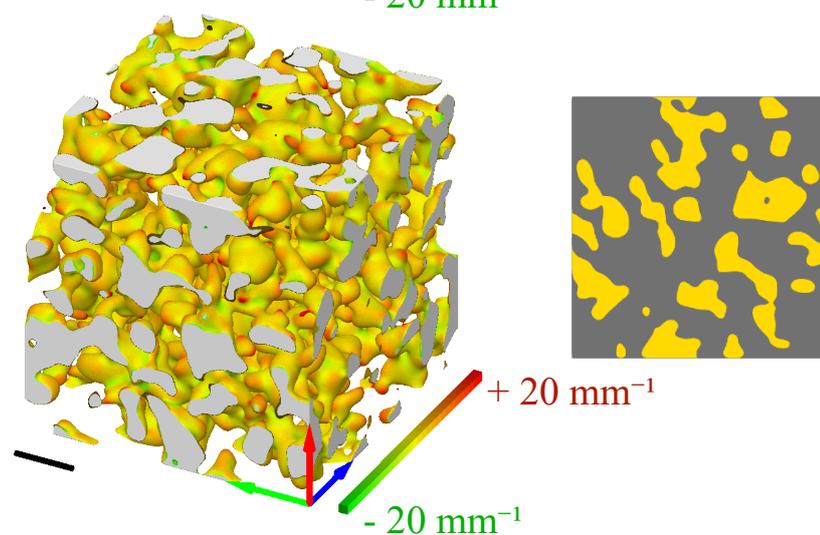
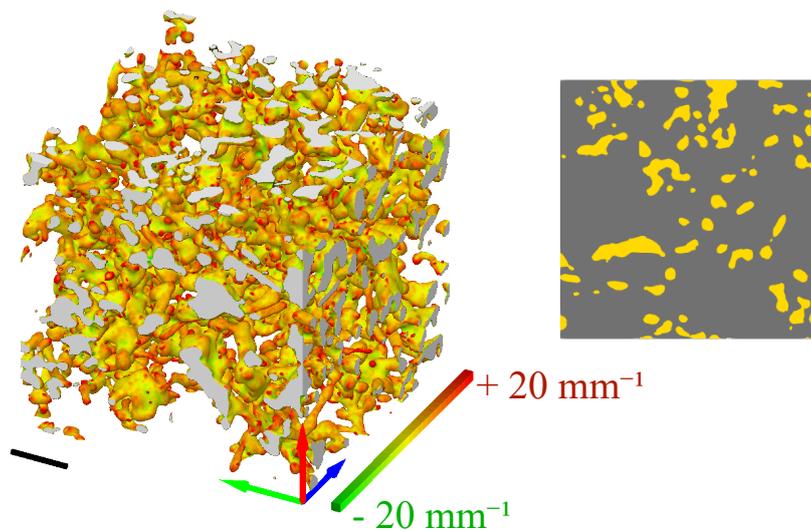


Figure S3. Close view of the initial, intermediate and final stage of the simulated series TG2 with 3-D views and vertical slices taken at the center of each cube.

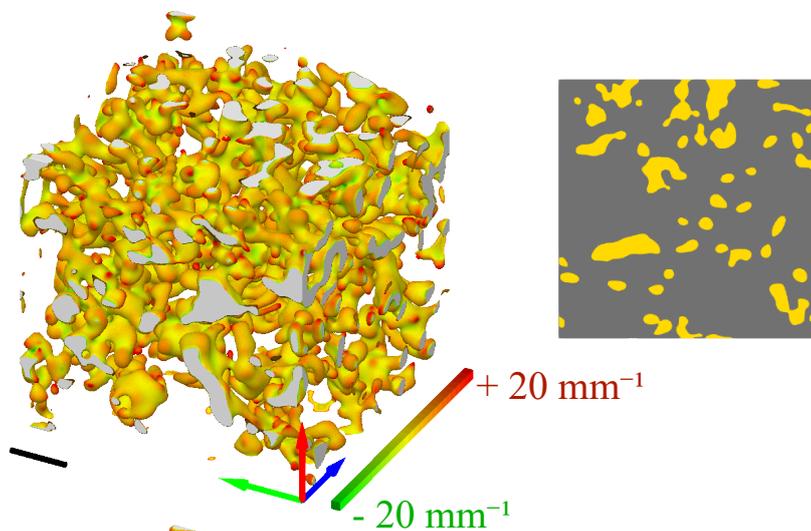
January 18, 2022, 3:12pm

I17

t = 0 days



t = 40 days



t = 80 days

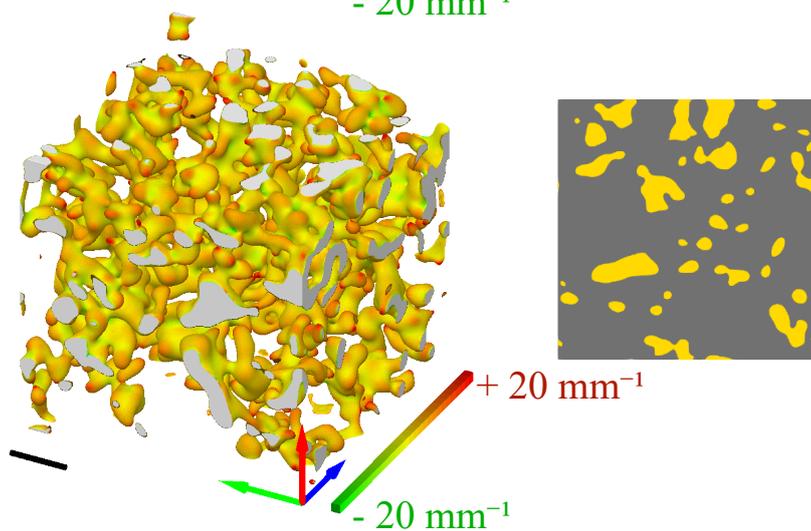


Figure S4. Close view of the initial, intermediate and final stage of the simulated series I17 with 3-D views and vertical slices taken at the center of each cube.