

FIGURE 7: Volume rendering of sea-ice pore space microtomography data for three temperatures within the same sample undergoing a warming cycle. Shown here is a subset of the data (not colocated), of 8.2 mm vertical extent.

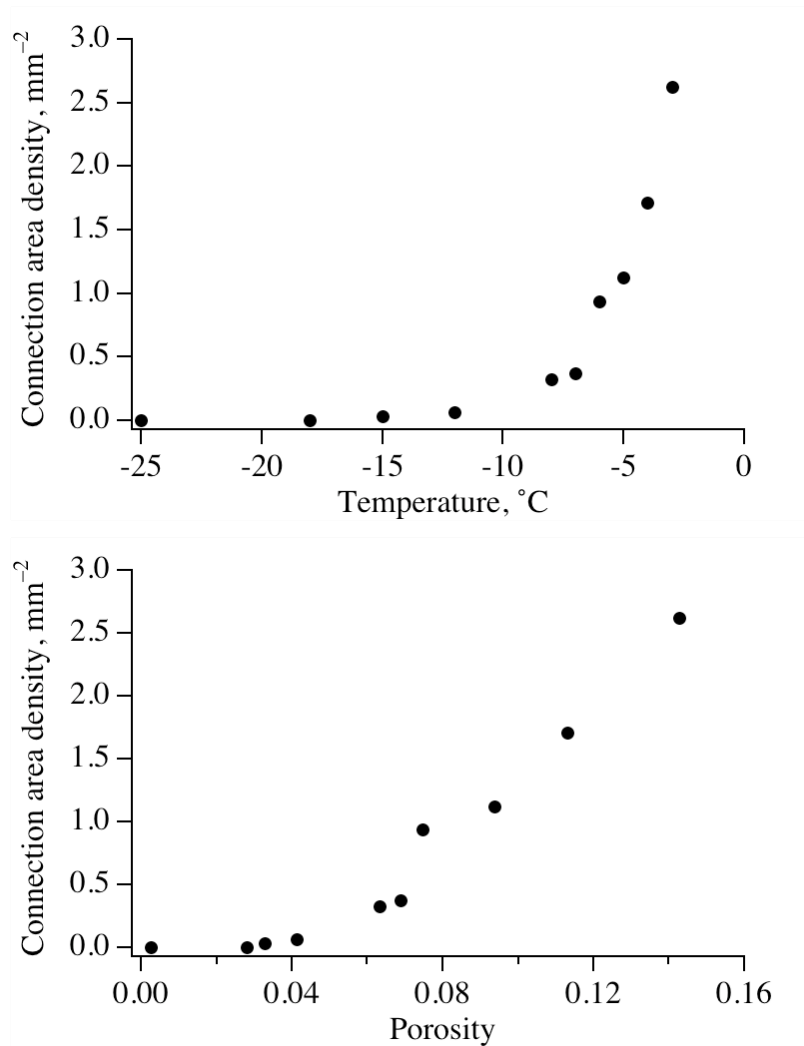


FIGURE 8: Measure of connectivity as determined on sea-ice single crystal samples (8 mm vertical extent, 20 mm sample diameter) as a function of temperature and liquid pore volume fraction. Shown is the area number density of pore medial axes that intersect the top surface and are fully connected to the bottom surface of the sample.

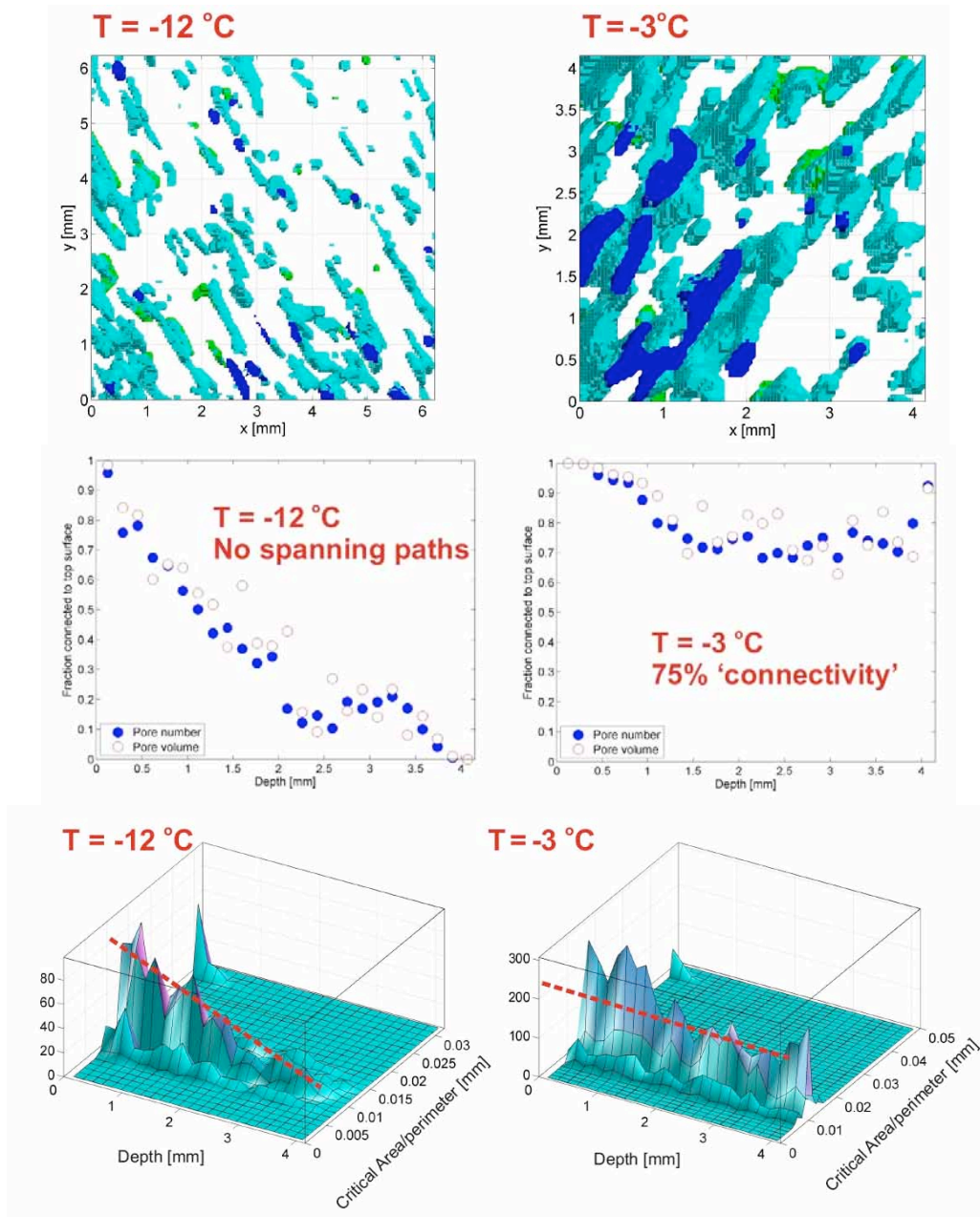


FIGURE 9: Results from dual model analysis. The top panels show a top view of a small subset of the data, indicating the top-connected pores (i.e., no throat present between surface and pore body) in blue, the bottom-connected pores in green and the remainder in cyan for warm and cold ice. The middle panels show the degree of connectivity (fraction of connected pore number and pore volume relative to total pore number and volume at each depth) as a function of depth into the sample. The bottom panels show a measure relevant for critical path analysis, i.e., the distribution of critical constrictions, as measured by the throat area/perimeter ratio. Roughly, this represents the largest radius ball than can reach each pore at each depth, and the distributions are shown as a function of depth from the surface and the area/perimeter value.