

FI behavior during microthermometry

In ~50% of the bi-phase FI from Cal1 the vapor bubble did not re-nucleate after homogenization and was metastably absent at room temperature. The vapor bubble nucleated after fast cooling-heating cycles between 0 and -20 °C. FI froze during the first cooling run, mainly at temperatures between -63 and -42 °C. During re-heating, ice melted with stable behavior in ~70% of the FI. In bi-phase FI from Cal2 vapor nucleation after homogenization was less metastable and in ~70% of the FI the vapor bubble nucleated during cooling toward room temperature. In some of the metastable FI the vapor bubble appeared after one fast cooling-heating cycle between 0 and -20 °C, whereas others required several cooling and heating cycles for the bubble to nucleate. FI froze during the first cooling run mainly at temperatures between -65 and -44 °C. Final melting of ice occurred with stable behavior in ~57% of the FI. Only 30% of bi-phase FI from Dol1 showed metastability of vapor nucleation after homogenization. In the metastable FI vapor bubble nucleated after just one fast cooling-heating cycle between 0 and -20 °C. FI froze during the first cooling run, mainly at temperatures between -70 and -55 °C. Final melting of ice occurred with a stable behavior in ~63% of the FI.