

RC1, RC2:

- 1: The main limitation of the current manuscript is the limited discussion over weird behavior observed at 6 hPa, the hypothesis seems reasonable so the manuscript could improve from detailing the underlying reasons and limitations.

Change in Manuscript: Discussion expanded at line 160ff.

RC3:

- 1: Please check on the numbering of the figures in the text. I guess in line 70 it should be figure 7 not figure 6.

Answer: Yes, that's true it should be figure 7.

Change in Manuscript: line 70

- 2: Equations 2 and 3: What temperature is T_1 ?

Answer: Yes, that was not mentioned. T_1 is the triple point temperature of water with $= 273.16\text{ K}$.

Change in Manuscript: line 84

- 3: Please add a short explanation why the measurements at -30deg have only been done at 8hPa.

Change in Manuscript: Explanation added at line 75ff.