

Interactive comment on “The rate of water vapor evaporation from ice substrates in the presence of HCl and HBr: Implications for the lifetime of atmospheric ice particles” by C. Delval et al.

Anonymous Referee #2

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The authors are probably correct that there is no absolute intensity data available for the HCl hydrates, either amorphous or crystalline. However, there is such data for the hydrated hydronium ion in related substances, such as the trihydrate of nitric acid (see, for example, Toon et al., J. Geophys. Res. 99, 25631, 1994). Though not quantitatively comparable such data, together with much qualitative spectroscopic information on the HCl hydrates, can be used as a basis for the type of conclusion offered in the last Comment by this reviewer. In fact, however, that conclusion was based on watching innumerable arrays of ice nano-particles convert completely to the different hydrates of HCl and HBr by following the changes in the infrared spectra.

Interactive comment on Atmos. Chem. Phys. Discuss., 3, 2179, 2003.

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