Interactive comment on “Temperature dependent halogen activation by N$_2$O$_5$ reactions on halide-doped ice surfaces” by F. D. Lopez-Hilfiker et al.

Anonymous Referee #2

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This is a fantastic manuscript describing a set of well-thought laboratory experiments on the reaction of N2O5 with brine solutions of ice. The paper discusses two points of high relevance and interest: The products of this reaction at varying chemical composition of the brine are investigated and this is then used to discuss the brine composition as function of temperature. I find the paper very clear, the argumentation very careful, and the conclusions well justified. I have no questions or suggestions except one small point: Could you discuss the relevance of the experiments above Br:Cl 1:100 a little bit more in detail? From the introduction, I got the impression that those concentrations are not realistically expected in the field, but the discussion stays somehow vague on this point.
Interactive comment on Atmos. Chem. Phys. Discuss., 12, 6085, 2012.