

Interactive comment on “Temperature dependent halogen activation by N₂O₅ 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.

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Interactive comment on Atmos. Chem. Phys. Discuss., 12, 6085, 2012.

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