

# ***Interactive comment on “Ice nucleation efficiency of natural dust samples in the immersion mode”***

**by Lukas Kaufmann et al.**

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It is surprising to see this statement and highlight of the paper listed in the abstract, that "...global models, in a first approximation, may represent mineral dust as a single species with respect to ice nucleation activity," without reference to a paper published just last year in Atmospheric Chemistry and Physics. The authors of the present paper do a fine job of justifying this point in great detail through laboratory studies, but in the abstract of DeMott et al. (2015) is the following statement: "These studies support the utility of laboratory measurements to obtain atmospherically relevant data on the ice nucleation properties of dust and other particle types, and suggest the suitability of considering all mineral dust as a single type of ice nucleating particle as a useful first-order approximation in numerical modeling investigations." It is hard to read that recommendation as any different than the one made in the present study, so it seems

appropriate to reference this prior work, especially with the similar focus on immersion freezing nucleation.

DeMott, P. J., Prenni, A. J., McMeeking, G. R., Tobo, Y., Sullivan, R. C., Petters, M. D., Niemand, M., Möhler, O., and Kreidenweis, S. M.: Integrating laboratory and field data to quantify the immersion freezing ice nucleation activity of mineral dust particles, *Atmos. Chem. Phys.*, 15, 393–409, doi:10.5194/acp-15-393-2015, 2015.

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Interactive comment on *Atmos. Chem. Phys. Discuss.*, doi:10.5194/acp-2016-337, 2016.

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