

Interactive comment on “Opinion: Cloud-phase climate feedback and the importance of ice-nucleating particles” by Benjamin J. Murray et al.

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I'd like to congratulate the authors on an important and well written opinion article, and generally agree with the main findings and recommendations. A few things that could be worth adding in a revised manuscript are: i) While INPs are important, there is a general lack of understanding also of the other (subsequent) processes governing cloud glaciation (secondary ice production, WBF process, riming, seeder-feider, etc). These processes tend to matter way more than INPs when it comes to cloud phase in GCMs. In other words, even with perfect knowledge of INPs, a better cloud phase feedback representation is not guaranteed. This should be stressed more. ii) The idea

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that INPs could increase in abundance in future in response to warming is intriguing, but not supported by paleoclimate records in which cold=dusty and warm=dust-free. This should be acknowledged. iii) the paper is generally well written, but fixing a few typos towards the end of the paper would make it even better.

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