

## ***Interactive comment on “Ice nucleation terminology” by G. Vali et al.***

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I'm not satisfied with the authors' reply on my comments. Their reply on my last comment on "3.10 AQUEOUS SOLUTIONS" indicates that the authors do not understand the physical chemistry of the freezing of aqueous solution drops i.e., they do not understand that aqueous drops separate into pure ice and FCS during the NUCLEATION and growth of ice. In other words, the phase separation occurs already during ICE NUCLEATION. The authors also do not understand that ice cirrus and type II ice PSCs are formed NOT by ice nucleation, but by FREEZING aqueous drops. (Here I'm not consider deposition ice nucleation on dry solid IN.) The study of ONLY ice nucleation, not of the WHOLE freezing process of aqueous drops, is useless and misleading in the atmospheric physics and chemistry of ice cirrus and PSCs. Without taking into account of real physical and chemical processes, which occur during the freezing of

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atmospheric aqueous drops, the stagnation in the study of the formation and micro-physical properties of ice cirrus, especially UT cirrus, and PSCs (as well as the impact of these clouds on climate) will persist forever and ever.

Further, the authors also deliberately ignore my other comments.

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Interactive comment on Atmos. Chem. Phys. Discuss., 14, 22155, 2014.

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