

Interactive comment on “Conceptual study on nucleation burst evolution in the convective boundary layer – Part IV: Comparison with previous observations” by O. Hellmuth

O. Hellmuth

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As for the other referees, I thank Michael Boy very much for his comments and the time he took to scrutinise the manuscript.

I would like to refer the referee kindly to my response to referee 1. Therein, the comments of all three referees are answered together and step by step.

Remarks: Even if the present modelling study is restricted to an "anorganic" nucleation scenario, I would like to see referee 2 as a leading author on biogenic-related NPF observations, convinced, that the model approach presented here, can contribute to the discussion of turbulence-related questions of NPF, and to the interpretation of observed

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measurements under certain conditions, respectively. Owing to the large number of predictive organic variables, supposed to be involved in "organic" nucleation, a third-order modelling approach is definitively not the "first choice" for modelling. However, for conceptual (or "mechanistic") studies with reduced chemical reaction systems, I think there is some potential for further scenario studies, including forest regions. Apart from this, the forest canopy layer deserves a more advanced meteorological parameterisation than used here. Anyway, in a technical note prepared for ACPD, I will discuss the present results in view of observations performed by Boy, Hyvoenen, etc., suggesting organic NPF, in more detail.

Interactive comment on Atmos. Chem. Phys. Discuss., 5, 11557, 2005.

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