

Interactive comment on “From molecular clusters to nanoparticles: second-generation ion-mediated nucleation model” by F. Yu

F. Yu

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The author thanks the anonymous referee for the constructive comments. My point-to-point replies to the comments are given below.

- two references. Will be added.
- Figure 10. Good point. The comment on the well agreement between the modeled increase in the concentration of 2 nm negative ions and the observations is appreciated. I will add the concentration of neutral particles in the revised figure.
- Contribution of different nucleation paths. In the model, the evolutions of positive, negative, and neutral clusters are dynamic and different types of clusters interact with each other (see equations 3-8). The neutral clusters of various sizes are continuously generated from the recombination. The current model is not able to isolate the nu-

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cleation flow of charged and neutral clusters. Under the conditions of Figure 10, the nucleation flow of neutral clusters is negligible if the formation of neutral clusters from recombination is turned off.

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 3049, 2006.

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