Atmos. Chem. Phys. Discuss., 3, S1607–S1608, 2003
www.atmos-chem-phys.org/acpd/3/S1607/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Simulating gas-aerosol-cirrus interactions: Process-oriented microphysical model and applications" *by* B. Kärcher

B. Kärcher

Received and published: 29 September 2003

1. I will remove Figure 1 but like to leave Sect.4 unchanged.

2. I will include these references.

3. The original reference behind Eq.(7) is

Kärcher, B. and Lohmann, U.: A parameterization of cirrus cloud formation: Heterogeneous freezing, J. Geophys. Res., 108, 4402, doi:10.1029/2002JD003220, 2003

which will be included before Eq.(7) first appears.

4. I will do as suggested at the beginning of Sect.3.

5. As suggested by Reviewer 1, I will add a note at the end of the introduction which

Full Screen / Esc
Print Version
Interactive Discussion
Discussion Paper

comparisons with analytical solutions have been carried out and how well the model performs on a general level.

All the examples shown in Figs.2–8 have been performed with high bin resolutions (50–100) and small time steps (< 1 sec).

6. Formally, changes of B act similar to changes in α, see Eqs.(22)+(23). A sensitivity test is already shown in Figs.6+8.

7. I am unable to short the conclusion without specific suggestion of what to leave out. Given the overall length of the paper, I think the current length of the conclusion section (which includes a summary in the first three paragraphs) is appropriate.

Interactive comment on Atmos. Chem. Phys. Discuss., 3, 4129, 2003.