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8, S9623-S9625, 2008

Interactive Comment

Interactive comment on "Parameterization of cloud droplet formation for global and regional models: including adsorption activation from insoluble CCN" by P. Kumar et al.

Anonymous Referee #4

Received and published: 3 December 2008

Section 2: A short discussion should be added to differentiate between when adsorption activation and Köhler should be applied.

Section 2.1: P 16857: Additional discussion is required on the difference between "stable" and "unstable" equilibria.

Sectional 3.3: The discussion on the relationship between the "C" constant and A_{FHH} , B_{FHH} is limited to the fitting procedure. It would be useful to add more on the physical meaning of the constant, and the relation with A_{FHH} , B_{FHH} .

P. 16865, Fig. 5. Typo in second to last equation. To include ρ_a in denominator of Term

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- 1 on LHS. Remove Gs_{max} term in numerator of LHS.
- P. 16867, L 5: Typo in Eq. (33). Please include Gs_{max} term in numerator of RHS.
- P. 16867, L 9: Typo in Eq. (34). Please include ρ_a in denominator of Term 1 on LHS.
- P. 16863, L 20: Typo in Eq. (24). Please include ρ_a in numerator of Term 1 on LHS.
- P. 16859, L 18: Replace " $n^s(s)$ " with " $n^s(s)$ "
- P. 16859, L 19: Replace "0 to s" with "s= 0 to s = s"
- P. 16862, L 16: Change "Eq. (21)" to "Eq. (20)"
- P. 16865, L 2: Change "Eq. (25)" to "Eq. (23)"
- P. 16872, L 2: Change "-2" to "2".
- P. 16872, L 7: Change "-1" to "1".
- P. 16872, L 13: Change "sulphate" to "sulfate"
- P. 16872, L 20: Change "physiochemistry" to "Physiochemistry"
- P. 16872, L 22: Change "Cohard, J. M." to "Cohard, J. -M."
- P. 16872, L 22: Change "Pinty, J. P." to "Pinty, J. -P."
- P. 16872, L 23: Change "11 753-11 766" to "11,753-11,766"
- P. 16873, L 15: Change "B." to "Bull."
- P. 16873, L 21: Change "T". to "Trans."
- P. 16873, L 31: Change "Tellus B" to "Tellus, Ser. B"
- P. 16874, L 22: Change "sulphur" to "sulfur"

Section 2.2: Change title from "Activation characteristics of FHH and Köhler particles" to "Activation characteristics of Köhler and FHH particles"

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Section 3.3: Change title from "Exponent x for FHH particles" to "Exponent x and Constant C for FHH particles"

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 16851, 2008.

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