Geoscientific

Model Development

Discussions

[GMDD]

Interactive

comment

Interactive comment on "Source-receptor matrix calculation for deposited mass with the Lagrangian particle dispersion model FLEXPART v10.2 in backward mode" *by* Sabine Eckhardt et al.

Sabine Eckhardt et al.

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For BC particles, settling plays a minor (insignificant) role. Therefore, to have a test case with more significant settling, we increased the diameter of the aerosol used in the study to 2 μm . We performed an evaluation for concentration and dry deposition of these larger particles and added this information to the supplementary material. We added: "For BC used here, the settling only plays a minor role. To test the algorithm also for a substance for which settling is important we made a separate test case focusing on a 2μm particle. The settling will influence the dry deposition velocity and the concentration. The differences between the forward and the backward simulation

are on the same level as for the BC discussed above. The detailed evaluation can be found in S1."