

Interactive comment on “Modeling global impacts of heterogeneous loss of HO₂ on cloud droplets, ice particles and aerosols” by V. Huijnen et al.

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Received and published: 14 April 2014

Thanks for replying my comment. Your new approach for estimating the effective up-take rate looks promising and should provide more realistic results.

There are still problems with the equations for the particle radius. In the article of Fouquart et al. (1990), the effective cloud particle radius is given (in micrometers) as $4 + 11 \cdot w$, where w is the liquid water *content* in grams per cubic meter, not the liquid water path. Using LWP instead of LWC cannot give the correct answer.

Regarding ice clouds, I still can't get realistic numbers from the equations. I would recommend that all units be specified to make things more clear. Also, is A in Eq. (5) equal to A_{ice} in Eq. (4) or should it be multiplied by 10 as discussed in the text?

C1395

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 8575, 2014.