

Interactive comment on “Impacts of aerosols on the chemistry of atmospheric trace gases: a case study of peroxides and HO₂ radicals” by H. Liang et al.

Anonymous Referee #1

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General: This is a sound study on peroxides, mainly studied in field measurements in Beijing, China which in a modelling part also deals with the impact of aerosol particles on gas phase HO₂ and hence H₂O₂.

The field measurement part contains a number of interesting results. The modeling part much resembles recent work by Mao et al.

Overall, the paper can be published in ACP subject to a few revisions.

Details

Page 16557, line 7: The model mechanism which has been used should be fully documented.
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mented. It is not sufficient to state "it has been chiefly drawn"....The full documentation can be given in a supplement.

P 16562, l 24: Schuchmann and von Sonntag

P 166572, l 15ff: Please give evidence that really diffusion is important for the differences between aerosol and haze periods. That might also be due to different aqueous phase chemical conversion as concentration change.

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 16549, 2013.