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Interactive Comment

Interactive comment on "A revised parameterization for gaseous dry deposition in air-quality models" by L. Zhang, J. R. Brook, and R. Vet

L. Zhang, J. R. Brook, and R. Vet

Received and published: 27 October 2003

We greatly appreciate all constructive comments from three reviewers. We have revised the paper accordingly and below is a list of major revisions.

We have added a few paragraphs discussing model uncertainties and limitations in Introduction section.

We have added results from our earlier model, a sensitivity test on the effect of aerodynamic resistance on diurnal variation of dry deposition velocity for wet canopies (Figures 3b and 3d), a short paragraph regarding the lacking of CO2/H2O data for model evaluation and discussions on maximum O3 Vd over forests in Section 4.1.

We have extended Table 2 to include results for wet canopies and for all 31 gaseous



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species in Section 4.2.

We have replaced Figures 4 and 5 with Tables 3 and 4 and extended the results to more gaseous species and typical conditions in Section 4.3.

We have rewritten the 'Conclusions' section and changed the section to 'Conclusions and Recommendations' by adding discussions on the priorities of future experimental work.

We have added 20+ references at different places for more detailed discussions on different issues.

We have added two appendices.

We have done many technical corrections, details of which can be found from our point to point answers to reviewers' comments.

Interactive comment on Atmos. Chem. Phys. Discuss., 3, 1777, 2003.

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