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Atmospheric Chemistry and Physics Discussions

Interactive comment on "A consistent molecular hydrogen isotope chemistry scheme based on an independent bond approximation" *by* G. Pieterse et al.

G. Pieterse et al.

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We thank Matthew Johnson for the constructive suggestions, and for the many detailed comments that he had already provided at the access review stage of this manuscript in ACPD, which were already included in the version published in ACPD. With respect to the remaining specific comments see our response below:

Comment regarding page 5688: We will implement your suggestion.

Comment regarding equation 12: We will consider implementing D for deuterated and N for non-deuterated reactions and then check whether this leads to less confusion.

Comment regarding page 5690: We implemented the hydrogen chemistry in the TM5

model. In the budgets in this model (i.e. for formaldehyde), the O3 and NO3 contributions are all rather small O(1%) compared to the OH contributions. Therefore we decided to leave the isotope implementation out for the time being. We will add a short comment that for a complete description the O3 and NO3 contributions should be incorporated.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 5679, 2009.

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Interactive Comment