

Response to the review comments by reviewer #3

M. Ammann, R. A. Cox, J. N. Crowley, M. E. Jenkin, A. Mellouki, M. J. Rossi, J. Troe, and T. J. Wallington

The original comments reviewer #3 are copied in black below, our response is given in *blue italics*.

The IUPAC data evaluation on heterogeneous chemistry is an enormous task in terms of the time taken by the authors, particularly the lead author. Data evaluation is always a difficult issue since it involves many different types of experiments. Authors may not be aware of all the intricacies of different experimental techniques used in producing the results and rightfully so. The data evaluation is very important because of all the data of similar experiments are available in one place and easy for the users to look into the deficiency of any set of data and design high quality experiments that would help to address some of the controversies. As people use the review, I am sure other users may make some useful comments that would improve the evaluation in the future. The authors should consider the comments by other two reviewers. They are very helpful.

Response

We would like to thank this reviewer for the careful consideration of this manuscript and the positive feedback.

I have a few general comments: There is no figure of data with any of the results. May be in the next version, authors may consider to include figures. I agree that the interested parties can look up the original paper.

Response

So far, in all evaluations published by the task group, we have followed the rule that figures are published on the website, but not included in the peer review published papers, mostly for reasons of space. We are aware that such plots may be helpful and will reconsider this decision in future evaluations

Technical corrections:

Page 32156: These two references need to be moved to the alphabetically appropriate place:

Kleffmann, J., Kurtenbach, R., Becker, K. H., and Wiesen, P.: Faraday Discuss., 100, 5 121–127, 1995.

Kleffmann, J., Becker, K. H., and Wiesen, P.: Atmos. Environ., 32, 2721–2729, 1998.

Response

will be done

Page 32157:

What is **Saltzman** reaction? May be a reference and a short description would be useful to the reader.

Response

Sentence will be changed to: Nitrate in solution was determined following reduction to NO_2^- and photometric detection of NO_2^- using nitrite as the diazotization reagent for the formation of an absorbing azocompound.

Page 32184, line 16: Typo: Replace “ressistance” with “resistance”

Response

will be done

Page 32283: “Table: VI.A2.14

$\text{ICl} + \text{Br}^- \rightarrow \text{IBr} + \text{Cl}^-$

Experimental data”: Perhaps reference is missing just before “AFT-CIMS (b)” Should it be “Braban et al. or Holmes et al.”?

Response

will be corrected

Page 32363: VI.A4.11

$\text{N}_2\text{O}_5 + \text{H}_2\text{O}$ (aqueous sulphuric acid aerosol)

- “Talukdar et al. (2012), Talukdar, R. K., Burkholder, J. B., Roberts, J. M., Portmann, R. W., and Ravishankara, A. R.: J. Phys. Chem. A, 116, 6003–6014, 2012” also reported N_2O_5 uptake on 50 and 60 wt% H_2SO_4 at 210 and 220 K (Table 4 of this reference). The authors may wish to include those also.

Response

Indeed, we will add these data to this datasheet.

Page 32470: Table of preferred values: Middle column, second and third lines: exponents should be **104 (i.e., 10000 and not 0.0001)**.

Response

Number will be corrected

Page 32471, line 16: “ HNO_3 ” should be “ HNO_3 ” – just a subscript!

Response: will be corrected