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Atmospheric Chemistry and Physics Discussions

Interactive comment on "298 K rate coefficients for the reaction of OH with *i*-C_3H_7I, *n*-C_3H_7I and C_3H_8" *by* "S. A. Carl and J. N. Crowley"

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The following are replies to the specific comments of referee 2.

Table 1. The erroneous reference to "bimolecular rate coefficients at each temperature" will be removed from this Table. The weighting applied to the data was based on the statistical errors obtained for k'. The caption to Table 1 will be amended appropriately. The error bars on the data of Figure 2 and Figure 3 (k' versus [reactant]) are the 2 σ errors on k' obtained from the least squares fit to the pseudo first order decays, and not the standard deviation of repeated measurements. This information will be added to the Figure caption.

P 31, L 24. k_1 and k_2 are the rate coefficients (in $cm^3\ s^{-1}$) for reactions (1) and (2).

P 33, L 11. The J values for iodopropanes are reported for Zenith angles of 40 °

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and clear sky. Details of the calculations are found in the cited work of Roehl et al..

P 33, L13. "Loss rate" will be replaced by "first order decay coefficient" in the revised manuscript. The OH concentrations that we use to calculate the first order decay coefficients are consistent with direct, in-situ measurements in the marine boundary layer [Brauers et al., 2001]. The text will be modified to include this citation.

The alternating use of k_{298} and k_{bi} will be removed from the revised manuscript.

The rate constants will be consistently referred to as "bimolecular" in the tables, figure captions and text.

The technical corrections suggested by the referee will be applied to the revised version of the manuscript.

References:

Brauers, T., Hausmann, M., Bister, A., Kraus, A., and Dorn, H.P., OH radicals in the boundary layer of the Atlantic Ocean 1. Measurements by long-path laser absorption spectroscopy, J. Geophys. Res., 106, 7399-7414, 2001.

Interactive comment on Atmos. Chem. Phys. Discuss., 1, 23, 2001.