

Interactive comment on “Evaluated kinetic and photochemical data for atmospheric chemistry: Volume III – reactions of inorganic halogens” by R. Atkinson et al.

R. Atkinson et al.

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Thank you Jim for your thorough review of our work! We are dealing with all the formatting queries and corrections, minor omissions and clarifications, and removal of redundant material in comments, in the revised version we are preparing for ACP publication. I will not deal with all the detail in this reply but cover a few key points you raise.

Identifying updates since last evaluation: all data sheets have been updated since the last JPCRD Supplement (2000) and many since the 2003 web version. However not all preferred values changed, and to track retrospectively and mark changes is a major job. We are currently developing a scheme for this on our IUPAC website version of the

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evaluation.

Photochemical data sheets: We will add new data sheets for BrONO and BrNO₂; we haven't ever done FO, FO₂ and ClO as they were not considered sufficiently important atmospheric photochemical reactions in the original IUPAC compilation.

Thermodynamic tables: The thermodynamic summary is available on the IUPAC website for all species; we did not consider it worth the effort in disaggregating it for the halogen species.

Data sheet III.A2.31 OK within uncertainty Data sheet III.A2.34 will remove unpublished ref. Data sheet III.A2.39 we will rewrite comments concerning the branching ratio Data sheet III.A3.71 inserted product channels with enthalpies Data sheet III.A4.96 Blitz reference will be updated and included in the evaluation

photolysis data sheets: We will try and catch all the layout inconsistencies and missing data/text you highlighted. We feel that the comments contain the information needed on techniques and more acronyms would be undesirable.

Data sheet III.A5.121 IO+hv; the tabulated cross-section data are averaged values over 5 nm intervals, which are needed for calculation of IO photolysis rates; the recommended high resolution value at the 4-0 band head is given in the comments.

Interactive comment on Atmos. Chem. Phys. Discuss., 6, 2281, 2006.

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