

Interactive comment on “Evaluated kinetic and photochemical data for atmospheric chemistry: Volume VIII – gas phase reactions of organic species with four, or more, carbon atoms ($\geq C_4$)” by Abdelwahid Mellouki et al.

Anonymous Referee #3

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This paper presents the eighth evaluation of kinetic and photochemical data by the IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation. The work performed by this evaluation panel is of prime importance for the scientific community of atmospheric sciences, in particular for the development of chemical schemes in atmospheric models but also for lab and field experimental studies. Recommendations are well justified in the supplement document and appear reasonable. This paper, which complements well the online database, is very useful for users as it includes a theoretical section on the kinetic treatment of the various types of atmospheric

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reactions in the gas phase. It also includes a summary of recommended kinetic parameters as well as detailed information upon which these recommendations are made. This paper is clear and well written. For rate constants that have been subject to re-evaluation, I would suggest to provide in the paper, or in the interactive database, the former value (for example in brackets). This could be very useful for the users as it would improve the traceability of the changes made. As a recommendation, this is not a critical point for the publication of the paper which can be published in its current state. However, I think that it could be useful for the users. In conclusion, I fully support the publication of this paper.

Please also note the supplement to this comment:

<https://acp.copernicus.org/preprints/acp-2020-940/acp-2020-940-RC3-supplement.pdf>

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2020-940>, 2020.

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