

Interactive comment on “Database for the kinetics of the gas-phase atmospheric reactions of organic compounds” by Max R. McGillen et al.

Anonymous Referee #1

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The present compilation of data for reactions of interest in atmosphere and beyond is valuable for the community and the fact that it is more comprehensive than other data bases makes it even more valuable. The fact that the database would be “live” is essential for its usefulness. I hope the agencies involved will support the effort to ensure its sustainability. I have some specific comments that the authors may like to consider before finalising the manuscript: The line 124 is debatable. Although the A factor can be related to the collision frequency, it is difficult to pinpoint that it includes the right orientation. There are reactions for which the orientation may not be important. Line 142: is there a sign missing in the exponential term? Line 144: meaning of the sentence is not clear. Line 151-155: statements seem confusing. 800 rate coefficients. . . remaining 2000 reactions. Line 159: is the gas kinetic limit unique? Line 193: it may

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be better to state Arrhenius activation energy Line 229: any reason to represent them as dative bonds? Line 250: the statement about 1644 compounds is confusing Line 316: define PAN. Normally, the polynuclear aromatic hydrocarbons are referred to as PAH Line 336: the statement about free energy is confusing

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