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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Mainz Isoprene Mechanism 2 (MIM2): an isoprene oxidation mechanism for regional and global atmospheric modelling" *by* D. Taraborrelli et al.

Anonymous Referee #1

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This paper presents the details of the new MIM2 mechanism, presenting many comparisons with MCM and two other reduced mechanisms for 5 days of box model simulations. This is valuable information for future use of the mechanism.

However, as mentioned by another reviewer, more comparisons of the mechanism implemented in a global model with observations would greatly improve the paper. Section 4 should clarify that the Butler et al paper does that to some extent. Section 4.3 would be far more useful if comparisons of these new species to observations were included, instead of just their global budgets given.

Minor comments

p. 14044, last line: Do you mean the box is 1 km high (not long)? or 1 km on each side?

p. 14045, line 13: Why wasn't the more recent MEGAN model (Guenther et al., 2006) used? At least a comment on how different fluxes from MEGAN are would be helpful.

p. 14046, line 20: 3.33x9 -> 3.33 x 10ˆ9 ? similarly for sections 3.4.1 and 3.5.1.

p. 14047, line 26: extra 'of'

p. 14048, line 24: missing 'to': referred to as MIMvK

p. 14051, line 2: identify NOA

Supplement Table 3 - mention in caption that J values are given in Table 6. Table 6 - what do the J indices refer to? Give species instead?

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 14033, 2008.