

Interactive comment on “Transport pathways of peroxyacetyl nitrate in the upper troposphere and lower stratosphere from different monsoon systems during the summer monsoon season” by S. Fadnavis et al.

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I agree completely with Referee #1's review, so will only add a few additional comments.

Reply: Thank you for valuable comments to improve the manuscript.

Section 2.2: What inventories were used for the emissions? References should be given. Perhaps also a table summarizing the emissions totals. Acetone and acetaldehyde have significant biogenic emissions, but these do not seem to be included in the

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simulations (see, for example, Guenther et al., GMD, 2012).

Reply: The model description in Section 2.2 now includes a detailed description of the emission inventories used for this study. We included references and total emissions for the main species which are important for PAN production, for both anthropogenic and natural (biogenic) emissions.

Section 3.1: Many more observations of PAN are available than listed in Table 1 (e.g., see Fischer et al., 2014 Table 2). For a study like this it would be appropriate to obtain and reference the original data sets from each campaign instead of just referencing an out-of-date website.

Reply: As suggested references are now added in table 1.

Fig. 3: Are b and c, and e and f, the same thing with different altitude and color scales? I don't see the point of that.

Reply: As suggested figure 3 is modified.

Fig. 6: should be split into 2 figures.

Reply: Figure 6 is spitted in to figures.

Throughout the paper, the results are presented as agreeing with previous work. It is really not clear what the new results are from this research.

Reply: Sorry for not being clear while representation of results and comparing them with previous work. This has been taken care in the revised manuscript.

Please also note the supplement to this comment:

<http://www.atmos-chem-phys-discuss.net/14/C9281/2014/acpd-14-C9281-2014-supplement.pdf>

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