

Interactive comment on “Characterization of non-photochemically formed oligomers from methylglyoxal: a pathway to produce secondary organic aerosol through cloud processing during night-time” by F. Yasmeen et al.

Anonymous Referee #3

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General comments:

This manuscript reports results from laboratory investigation of non-photochemical methylglyoxal oligomer formation through simulated cloud processing. The authors elucidated the structures of formed oligomers based on their fragmentation behaviors in electrospray-linear ion trap mass spectrometry (ESI-LIT-MS). This reviewer found the manuscript well written and will be of interest to the community. Most of the issues

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that this reviewer found are also raised by other reviewers and they are not repeated here. Nevertheless, there are a few additional technical comments that the authors may want to address in the revised manuscript.

Specific comments:

p. 23001 line 2: It may be nitpicking but the pH value stated here (4.5-5) is not exactly the same as the previous page and page 23003 (pH 4-5) for higher pH solutions. Are there any reasons for this discrepancy?

p. 23002 line 15-25: This reviewer agrees with both the reviewers that these compounds more likely originate from nitrogen containing species rather than radical cations. Have the authors access to a high resolution mass spectrometer to confirm the molecular formulas for these compounds?

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 22993, 2009.

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