

Interactive comment on “Single-particle experiments measuring humidity and inorganic salt effects on gas-particle partitioning of butenedial” by Adam W. Birdsall et al.

Anonymous Referee #2

Received and published: 31 July 2019

I have little to add to the previous referee comment. I am worried about the unmeasured extent of water evaporation during the "dry" experiment. The panel of Figure 6 that reports on the MS result for the "dry" condition suggests a vapor pressure result (from the shown fit) that is much more precise than I believe, given the data. Scientifically, I wonder about the relationship between the empirical "salting out" that is documented here, with the availability of water for hydration of the aldehyde, given the high demand to solvate the inorganic ions. I suspect this is amenable to modeling, somehow.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2019-423>,
2019.