

Interactive comment on “Continuous standalone controllable aerosol/cloud droplet dryer for atmospheric sampling” by S. Sjogren et al.

Anonymous Referee #1

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Even if the paper and the results are interesting, the technical details and explanations (AMT means AM Techniques..) are not well structured and some times misleading.

As an exemple, Fig.3 and Par. 4.1 needs some improvements: you do not specify in the text why there is a Ni63 neutralizer (obviously for the DMA), or the reason of the "large cone used on the top of the drier", why just in the second experiment, the flows of the set-ups (in set-up B the DMA works with 5.7 lpm of sample flow..?)

Another question is around the scientific approach: you said that concentrations are measured with 2 CPC 7610 and you don't mention some technical details of this counter used in both set-ups. (e.g., cut-off, flow...). What is the maximum particle diameter "visible" with this counter? 10, 20, 30 micrometers..? This is a limitation?

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Maybe for the set-up A, it would be better to measure the concentration with an OPC (two) ?

As a personal comment, I would like to review this paper, but I've had the impression reading it that it was not "structured" and revised at all before the submission. I don't want to be boring, but at Page 5473 line 15 you said:

"...There are 3 design criteria...(the last is) residence time needed for drying, without reference. In the aerosol literature, as far as I understood, you worked on particles hygroscopicity using DMA etc. I mean, in your (this one) paper you don't reference your other papers. You forgot? ..

Hope that you'll provide more technical details and clear informations especially around the technical set-ups because it would be a "sin" not to make it.

best regards

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