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Interactive comment on "Dry versus wet? Implications on aerosol impaction and organic volume fraction" by Hansol D. Lee et al.

Anonymous Referee #1

Received and published: 13 December 2018

This paper investigated dry and wet deposition effects on the generated and impacted aerosol particles' mixing states that display core-shell morphology. In general, the techniques are well-used and the manuscript is well written. However, some suggestions are worth noting. 1 The abstract section is too long. Only key information is needed.

2 As we know, levoglucosan dominates the sugar particulates, while little glucose exists in the atmosphere. Meanwhile, more details about glucose (or particle phase sugar) should be added in the Introduction section.

3 Section 3.1: Authors employed the RH of 25% to measure OVF. However, RH in the real atmosphere is usually higher than 30%. Additionally, whether the authors considered the particle hygroscopicity?

C1

4 For the equation S1, which kind of density is used here? Please explain in detail.

5 The authors used one paragraph to describe the t-test and null hypothesis. But t-test is a simple statistical tool and only the significant result should be put in manuscript.

6 Conclusion section. The atmospheric implications of the experimental results should be discussed.

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2018-400, 2018.