

***Interactive comment on* “Chemical characteristics of cloud water and the impacts on aerosol properties at a subtropical mountain site in Hong Kong” by Tao Li et al.**

Anonymous Referee #2

Received and published: 4 June 2019

General Comments: This study reports on field measurements of trace gases, aerosols, and cloud water at a mountaintop site in Hong Kong. A valuable set of results are provided that are important for the research community interested in cloud processes, especially aqueous processing in clouds. The paper is written fairly well and the methods used seem sound. The conclusions are supported by the data. I did not find too much to comment on in terms of issues and it is my opinion that the paper was constructed well. I only have minor comments below that should be addressed prior to publication.

Specific Comments: Page 15, Line 23-26: This study showed how the oxalate:sulfate

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ratio grows in clouds and worth noting here for the discussion:

Wonaschuetz, A., et al. (2012). Aerosol and gas re-distribution by shallow cumulus clouds: an investigation using airborne measurements, *J. Geophys. Res.*, 117, D17202, doi:10.1029/2012JD018089.

Page 18, Line 19-21: This proposal is also supported by the following and can be added in the discussion to support the authors' speculation:

Ervens, B., et al. (2018), Is there an aerosol signature of chemical cloud processing? *Atmos. Chem. Phys.*, 18, 16099-16119, doi: 10.5194/acp-18-16099-2018.

Technical Comments: Page 11: "organics" is spelled wrong

Interactive comment on *Atmos. Chem. Phys. Discuss.*, <https://doi.org/10.5194/acp-2019-481>, 2019.

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