

Atmos. Chem. Phys. Discuss., referee comment RC1
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Comment on acp-2021-991

Anonymous Referee #2

Referee comment on "Measurement report: An exploratory study of fluorescence and cloud condensation nuclei activity of urban aerosols in San Juan, Puerto Rico" by Bighnaraj Sarangi et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2021-991-RC1>, 2022

This manuscript reports on results obtained from a pilot study connecting fluorescence and CCN activity of urban aerosols in San Juan, Puerto Rico, which are interesting.

In the title "Measurement Report" could be removed

Sentence structure and grammar needs to be checked, for example, lines 19-20, 275-277, 300-301

lines 161-162 - explain why absolute size of particles is not a factor in the current analysis

line 168-170 - needs to be rewritten, more clearly

line 262 - met parameters are collected at about 800 m away from aerosol measurements, is it a concern? Will the distance between the two measurements influence the inferences/results, explain

lines 275-280 - comment on the reasons for differences with other results

line 318 - why ABC type is quite large and dominates the FAPs during a particular time, explain

line 328 - any specific reason for the diurnal variation in FAP size distribution? Is it due to meteorological parameters, explain

line 353 - explain why larger increases at EODs larger than $2 \mu\text{m}$. Make a conclusion statement.

line 371 - explain the role of asphericity, and also its impact on FAP/non-FAP when it is low or high

line 388 - these inferences should be connected to the results discussed earlier, and the same meteorological data also

Figure 6 - how can FBAP D_{mvd} be high and low at the same RH? Explain. Similarly, FAP increases as RH increases in general, but this function is not clear as there is a spread at around 80% RH, explain