Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2018-388-RC2, 2018 © Author(s) 2018. This work is distributed under the Creative Commons Attribution 4.0 License.





Interactive comment

## Interactive comment on "Diurnal variation of aerosol optical depth and PM<sub>2.5</sub> in South Korea: a synthesis from AERONET, satellite (GOCI), KORUS-AQ observation, and WRF-Chem model" by Elizabeth Lennartson et al.

## Anonymous Referee #3

Received and published: 3 July 2018

This study discussed the diurnal variations of AOD and PM2.5 in South Korea based on the Aeronet, satellite (GOCI), KORUS-AQ observation and WRF-Chem model. Although the authors highlighted the diurnal variations of AOD and PM2.5, the scientific questions are not mentioned in the whole manuscript especially in introduction. I believe the parameters of diurnal variations of AOD and PM2.5 may be useful for the assessment of aerosol radiative forcing, but this study is out of this topic. Moreover, there is nothing new findings of this manuscript and the ACPD revision was similar with the original version with few revision. I wish the authors would address the followed

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Discussion paper



critical comments and carefully polish the English throughout the manuscript. 1. I suggest the authors to provide the progress of relevant studies in South Korea rather than USA in the section of introduction or the background and motivation. 2. Since the results from WRF-Chem were poorly matched with the observation, why the authors still used it? What can we learn from it?

Interactive comment on Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2018-388, 2018.

## **ACPD**

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