

Interactive comment on “The surface aerosol optical properties in urban areas of Nanjing, west Yangtze River Delta of China” by B. L. Zhuang et al.

Anonymous Referee #4

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Review of “The surface aerosol optical properties in urban areas of Nanjing, west Yangtze River Delta of China” by Zhuang et al., 2016.

This manuscript provides an in depth analysis of aerosol optical properties spanning several years using surface observations of aerosol optical properties in Nanjing, China. While the results presented in the manuscript are valuable to the community, the organization and presentation of the manuscript is overwhelming. Therefore, I recommend publication with major revision.

Major Comments: 1. As previously mentioned, presentation of results in the manuscript is overwhelming. Specifically, listing Bsp, AAC, EC, etc., values over and over again is very confusing. These numbers are listed in tables, and I suggest that the authors refer

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to them that way, rather than listing in the manuscript. 2. Observations like this are of great benefit to the community, but I feel the seasonal and diurnal observations are of great importance to the modeling community. I think these findings could be highlighted more as a useful resource to aerosol modelers and discussed in the conclusion. It would be particularly valuable if the authors could parse out the optical properties at a monthly scale, which could be directly read by a model, for example.

Minor Comments: 1. Lines 81 – 102. It would be easier to interpret and compare values presented in this paragraph as a table. 2. Line 29. What is Bsp? 3. Line 30. What is AE? 4. Line 35. What “could be further deteriorated”? 5. Lines 38 – 39. Please provide a reference. 6. Line 42. This sentence requires several more references. 7. Lines 59 – 60. How can the bias in Zhuang et al., 2013a be explained by Holler et al., 2003? One study was 10 years prior to the other. 8. Lines 69 – 70. Please provide a reference. 9. Lines 133. What does ATN stand for?

Technical Comments: 1. Line 56. Radiative.

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