

Interactive comment on “Spectral optical properties of long-range transport Asian dust and pollution aerosols over Northeast Asia in 2007 and 2008” by J. Jung et al.

Anonymous Referee #1

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In the manuscript, one year measurement results for aerosol physical properties at Seoul, Korea are reported. The data are valuable, comprehensive measurements that can be used in many purposes. My major concern is that the manuscript is written not like a research article but like a report. The authors just report the data with little data interpretation or discussion. Another concern is that the manuscript is rather lengthy and hard to read. In my opinion, Chapters 2 and 3 can be shortened significantly and Sections 4.1 and 4.2 can be described in more concise way. Also, there are a couple of loose points: 1. P. 13, bscat by the nephelometer is a point measurement, but the Angstrom exponent of aerosol light extinction data were from column integrated data from the Skyradiometer to calculate spectral dependence of bext. I think, it is inevitable

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but still the authors should provide justification on that or possible error bound. 2. P. 14, the authors suggest that the low Angstrom exponent of bscat in summer is due to the increase of particle size through water uptake. Is there supporting evidence for that suggestion? 3. The starting point of 200 m high seems too low for the backward trajectory analysis. Do the authors have justification on it or some kind of error analysis? Thus, I think the manuscript is not suitable for publication at present form and recommend the authors revise the manuscript and resubmit it.

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