Atmos. Chem. Phys. Discuss.,
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Atmospheric Chemistry and Physics Discussions

Interactive comment on "On the spectral depolarisation and lidar ratio of mineral dust provided in the AERONET version 3 inversion product" *by* Sung-Kyun Shin et al.

Anonymous Referee #1

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Authors provide useful comparison of lidar and depolarization ratios of dust provided by AERONET (version 3.0) with corresponding lidar derived values. AERONET results are given at four wavelengths for different source regions. The manuscript is clearly and well written. I wouldn't call the presented results very novel, but it is good overview of lidar and AERONET dust observations, which will be useful for researches working in the field of desert dust study.

I don't have many suggestions for revision, just technical corrections:

Ln 9. "a mixture of non-spherical dust with spherical particles such as biomass-burning smoke" Actually smoke particles are not spherical and in some cases can provide

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Discussion paper

significant depolarization. So I would use “low-polarizing particles”.

Ln 24. “while those at 1020 nm resemble lidar-derived values” At what laser wavelength?

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