

Interactive comment on “Aerosol characterization at the Saharan AERONET site Tamanrasset” by C. Guirado et al.

Anonymous Referee #2

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General comments:

The paper describes the aerosol characteristics based on the measurements by Cimel sun photometer at a desert site, Tamanrasset, Sahara. Preliminary results by Guirado et al. (2011) are here revised and extended with KCICLO-corrected Level 1.5 data. The link between AOD (and AE) and properties of the CBL has been extensively investigated. CWT method has been used to find out the potential source regions of the air masses. In addition to AOD and AE, microphysical and optical properties as well as PWV were studied.

Specific comments:

Generally, the paper is clear and well written. Tables and figures are sufficient.

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Apparently, KCICLO method is a feasible way to correct the data when the current instrument calibration is for some reason over or down estimated. I would like to read more careful justification why the method is applicable specifically under conditions where the instrument window is contaminated.

As said by the other referee, the used time series should be longer to get a more realistic picture of the local aerosol climatology.

3.1.1 It was not obvious from the text that the used data are single measurements, not averages.

Technical comments:

4, row 26: a dot is missing between sentences.

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 16641, 2014.