

Interactive comment on “Dust optical properties over North Africa and Arabian Peninsula derived from the AERONET dataset” by D. Kim et al.

Answers to the comment of H. Moosmuller

With the extinction Ångström exponent for 440, 870 nm being used as sole criterion for selecting data dominated by dust aerosols, it would be of great interest to include this parameter in the discussion of dust optical properties. Specifically, it would be very interesting to (1) include means, standard deviations, and maximum and minimum values of Å_{ext} for all sites (table1), (2) show annual variance of Å_{ext} (fig. 2), (3) show the wavelength dependency of Å_{ext} (fig. 3) by using different wavelength pairs for its calculation, and (4) include Å_{ext} in fig. 4 showing annual mean and standard deviations for Å_{ext} at all sites. Such a discussion of the Ångström exponent of extinction would also shed more light on the importance of hematite absorption, which is often the cause for negative scattering Ångström exponents and large absorption Ångström exponents, generally resulting in small extinction Ångström exponents as function of SSA.

We thank to Dr. Moosmuller for the constructive comment. We added Å_{ext} to the table and figures following his suggestions. The result of Å_{ext} analysis is consistent with other results and it increases the confidence of our current method. Results are added in the manuscript.