

Interactive comment on “Alignment of atmospheric mineral dust due to electric field” by Z. Ulanowski et al.

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I have two minor points to bring up.

First, have the authors checked whether the moon was up during the measurements and what was the phase of moon? One would think that the scattered moon light would contribute to observed polarization, especially if the differentially attenuated star light originates from a star field rather than from a single dominating star (in which case the attenuation and scattering would be similarly affected by the small field of view of the instrument). Due to the high single-scattering albedo of dust particles, extinction is almost entirely due to scattering. If the moon was up, can the authors show that the polarization contribution from scattered moonlight is insignificant compared to the extinction contribution? I assume there are no artificial lights to consider.

Second, did the authors check whether there was azimuthal dependence in the differential polarization? If mountains give rise to a stronger electric fields, there could be significant horizontal components in the electric field close to mountains, which might give rise also to an azimuthal orientation of particles.

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 13203, 2007.

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