

Interactive comment on “Technical Note: Mineralogical, chemical, morphological, and optical interrelationships of mineral dust re-suspensions” by Johann P. Engelbrecht et al.

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Dear Sir, As expected, re-suspended mineral dust aggregates studied by the authors have the general features of soil particles (Figs. 4-10 and 12-14). According to these authors, only particles less than $\approx 10 \mu\text{m}$ in diameter survive long-range transport; however, the giant particles reported by Jeong et al. (2014) were transported directly from source. At the contrary, mineral aggregation is not limited to soil-forming processes, because the aggregation of fine mineral particles observed in some airborne particles may occur via atmospheric processes. Iberulites result from aggregation phenomena in atmosphere when Saharan dust outbreaks reach the South of Spain (Díaz-Hernandez and Parraga, 2008). However, some textural, mineralogical and composi-

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tional features observed for these giant airborne dust particles are similar to those of the re-suspended soils particles described by the authors (see Cuadros et al., 2015). We propose that these considerations should be included in the Introduction and Conclusions in relation to mineral aggregates observed in dust particles.

References: Cuadros, J., J. L. Díaz-Hernandez, A. Sanchez-Navas, and A. Garcia-Casco (2015), Role of clay minerals in the formation of atmospheric aggregates of Saharan dust, *Atmos. Environ.*, 120, 160-172, doi:10.1016/j.atmosenv.2015.08.077. Díaz-Hernandez, J. L., and JF. Parraga (2008), The nature and evolution of iberulites: pinkish mineral microspherulites, *Geochim. Cosmochim. Acta*, 72, 3883-3906, doi:10.1016/j.gca.2008.05.037. Jeong, G. Y., J. Y. Kim, J. Seo, G. M. Kim, H. C. Jin, and Y. Chun (2014), Long-range transport of giant particles in Asian dust identified by physical, mineralogical, and meteorological analyses, *Atmos. Chem. Phys.*, 14, 505-521, doi:10.5194/acp-14-505-2014.

Please also note the supplement to this comment:

<http://www.atmos-chem-phys-discuss.net/acp-2016-286/acp-2016-286-SC1-supplement.pdf>

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