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1, S7–S8, 2008

Interactive Comment

Interactive comment on "Surface features on Sahara soil dust particles made visible by atomic force microscope (AFM) phase images" by G. Helas and M. O. Andreae

G. Helas and M. O. Andreae

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Minor point: Is it possible that the soluble material was formed during storage? Please explain.

We thank the referee for his comments. The referee touches an important point when asking about artifact formation during storage. Indeed, we have no possibility to exclude such a process after sample collection. We only can state that the filter sample was stored in a sealed petrislide between sampling and analysis. However, this issue is somewhat beside the point of the present paper, as we are presenting an analytical method, and are not investigating problems related to sampling techniques, sample integrity, and storage artifacts. For that, special measurement series would be required





specifically targeting such problems.

We intend to include a sentence on page 10, line 4: ... The origin and composition of the surface deposits that we observed on the Sahara dust particles cannot be determined with our methods, and there are several possibilities to take into account. (insert) As the sample was stored in a sealed container, we assume (but cannot prove) that the deposits on the particles were present before collection and are not due to storage artifacts (end insert). The particles may have entered the atmosphere already having the deposits or coating, or may have acquired them by coagulation with other particles during atmospheric transport or cloud processing (Andreae et al., 1986).

Interactive comment on Atmos. Meas. Tech. Discuss., 1, 1, 2008.

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