Geophysical Research Abstracts, Vol. 9, 09185, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-09185

1 Size distribution, morphology, and composition of mineral dust and biomass burning aerosols from western Africa as observed by scanning and transmission electron microscopy

P. Formenti (1), C. Chou (1), C. McConnell (2), G. Capes (3), P. Ausset (1), M. Maillé (1), A. Gaudichet (1), S. Nava (4), S. Caquineau (5), S. Osborne (6), J. Haywood (6), E. Highwood (2), H. Coe (3)

(1) Laboratoire Interuniversitaire des Systèmes Atmosphériques, CNRS/Universités Paris7/Paris12, (2) University of Reading, (3) University of Manchester, (4) Instituto Nazionale di Fisica Nucleare, Firenze (5) Institut de Recherche pour le Developpement, Bondy (6) UK MetOffice

(formenti@lisa.univ-paris12.fr/Fax:+ 33 1 4517 1564)

Aerosol sampling on polycarbonate filters has been conducted onboard the UK BAe146 research aircraft during the winter special observation period SOP0 of the AMMA field program. The aircraft, based first in Niger then in Senegal, was operated within various mineral dust and biomass burning layers encountered between surface level and 6 km.

In this poster we present some results on the aerosol size distribution, morphology and composition as obtained by combining scanning and transmission electron microscopy. These results are compared and interpreted on the basis of the information on the chemical composition and number size distribution of the bulk aerosol obtained by complementary techniques.