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Dust deposition fluxes to northeastern subtropical Atlantic (Canary Islands)

M.D. Gelado (1), M.J. Rodríguez (1), J.J. Hernández (1), E.M. Brito de Azevedo (2), O. LLinás (3), C. Collado (1), P. Cardona (1) and P. López (1)

(1) Universidad de Las Palmas de Gran Canaria, Gran Canaria, Spain, (2) Universidade dos Açores, Terceira, Portugal, (3) Instituto Canario de Ciencias Marinas, Gran Canaria, Spain (mgelado@dqui.ulpgc.es/ Fax: 0034928452922)

African dust transport constitutes a large fraction of the annual atmospheric deposition in the Canary Islands. The analyses of aerosol samples and deposition measurements have been carried out during CLIMAAT Project at Tafira (28˚ 06' N, 15˚ 24' W; 269 m a.s.l.) located in Gran Canaria. Total dust deposition flux was 16 g m^{-2} yr^{-1} from May 2003 to December 2004. Highest dust depositions were observed during winter, especially for January and February. Winter events account up to 35% of the total annual flux. Seasonal distribution of concentrations of total suspended particles (TSP) indicates that dust outbreaks are more frequents in winter. Composition of trace metals (Al, Fe, Co) in the mineral aerosol and the possible impact of large dust pulses in the Canary basin are discussed.