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Saharan dust deposits from Lanzarote (Canary Islands) – a continuous paleoprecipitation archive off NW Africa

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At Lanzarote (Canary Islands) Late Quaternary Saharan dust as well as volcanic material were trapped in Miocence to Pliocene valleys dammed by volcanic lava flows. These trapped sediments can be used as natural archives to reconstruct the terrestrial paleoclimate history of the NW African margin for at least 1 Ma. Nevertheless, slope wash processes altered the primarily eolian deposits, thus making a climatic interpretation not straightforward.

In this study, we investigated the last 200 ka using sedimentologic and environmental magnetic methods. The age model is based on luminescence data. The results show that Lanzarote occasionally experienced wetter periods than today, whereby precipitation never exceeded amounts characteristic for a semiarid or semihumid climate.