



Soil moisture changes recorded in sediments of volcanic sediment traps on Lanzarote (Canary Islands) – a proxy for precipitation of the last 180 ka?

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Valleys dammed by volcanic material during the Quaternary on Lanzarote (Canary Islands) served as traps for Saharan dust and local volcanic material. As could be shown for the last 180 ka, these sediments were generally subjected to soil forming processes during cold stages and substages, whereas pedogenesis did hardly take place during warm periods as the Holocene. This shows that dry soil moisture conditions as found today were the exception rather than the rule during the Late Quaternary. The crucial question is if enhanced soil moisture was caused by increased precipitation, or if it was indirectly enhanced by reduced evaporation caused by lower air temperatures during cold periods.