Supplement of

Controls of aeolian and fluvial sediment influx to the northern Red Sea over the last 220 000 years

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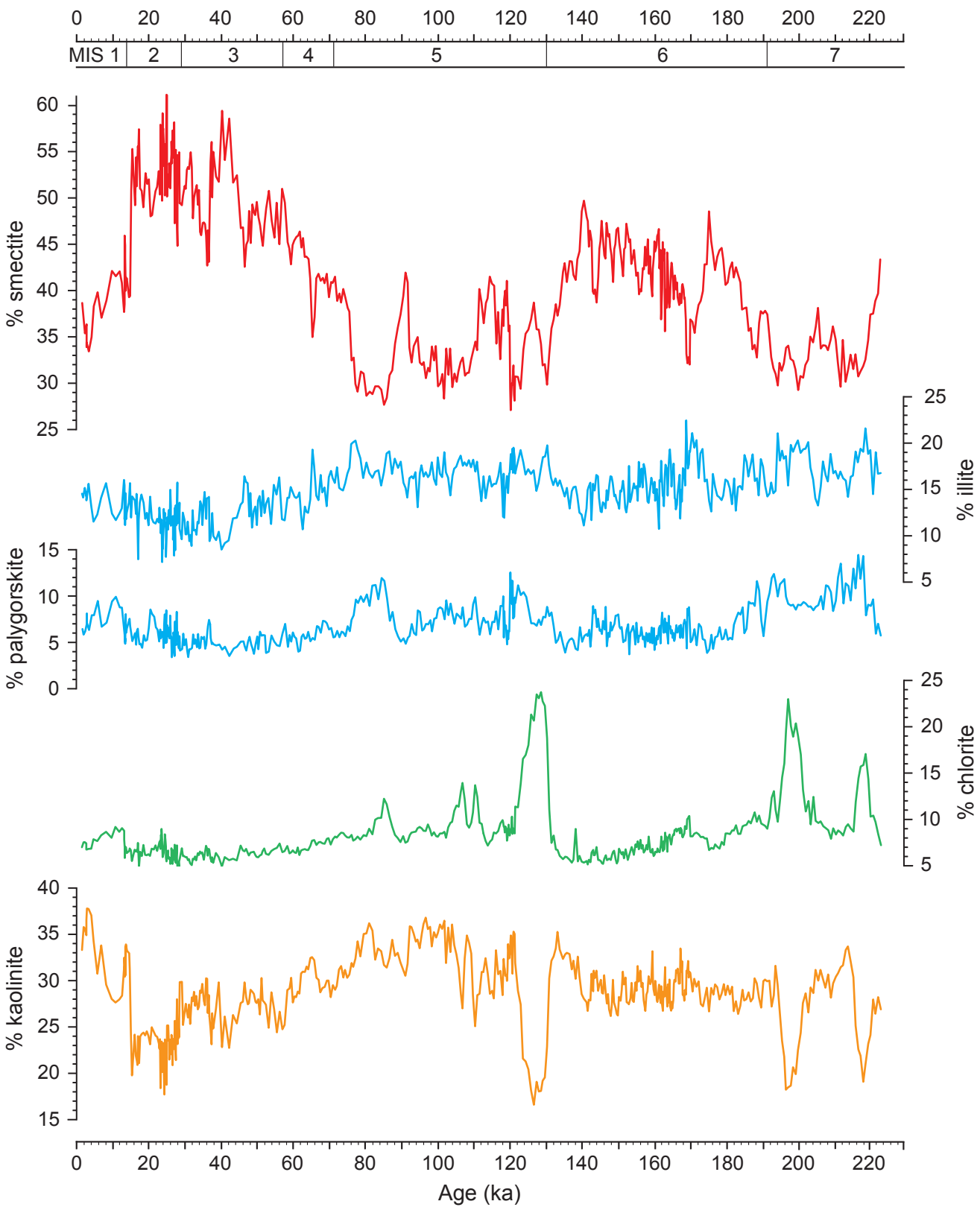

Figure S1. Clay mineral composition of sediments from core KL23. Marine isotope stages (MIS) are indicated at the top.

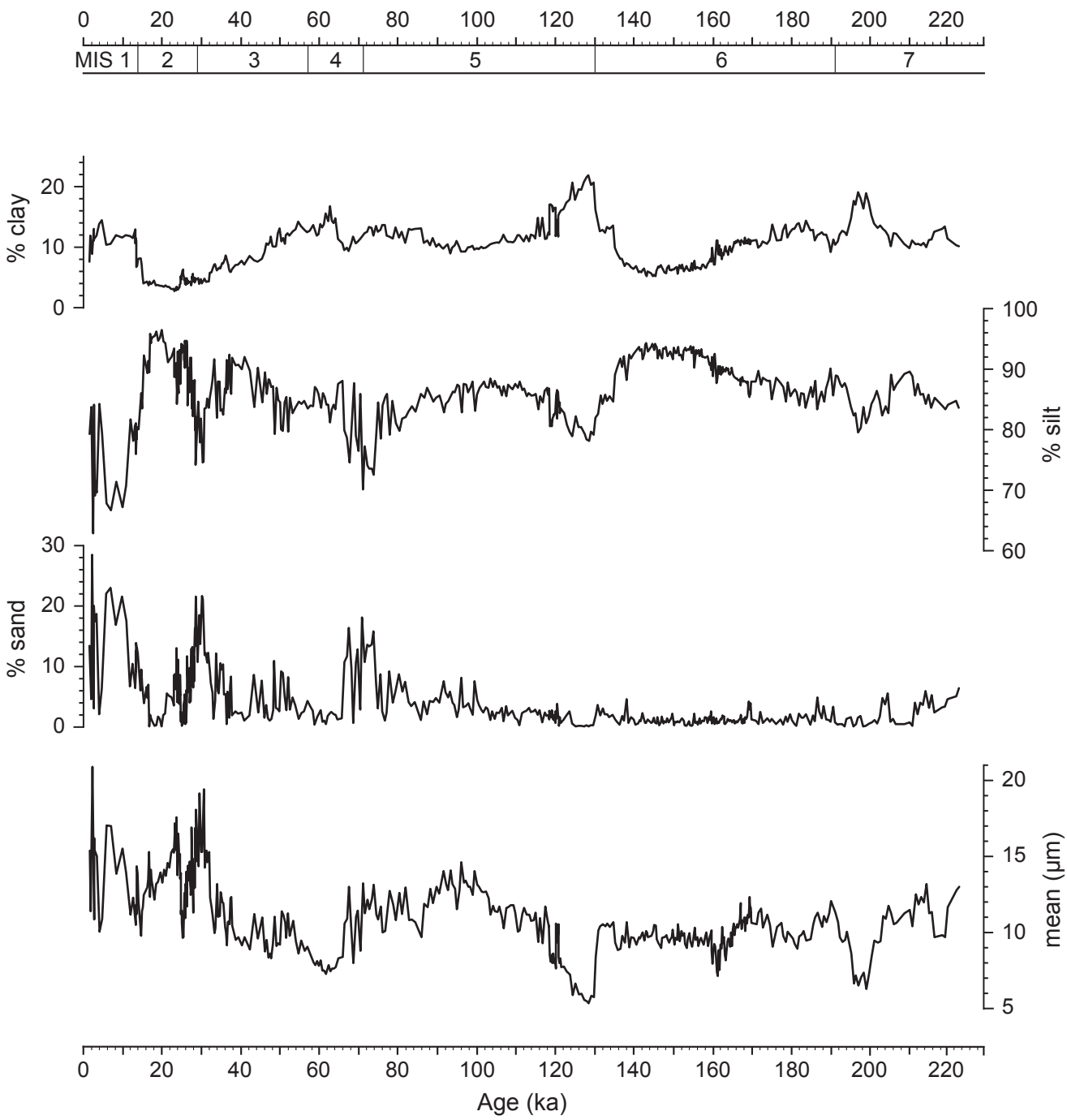

Figure S2. Grain size data from the terrigenous sediment components of core KL23: percentages of clay (<2 μm), silt (2–63 μm), and sand (>63 μm), and mean grain size (μm). Marine isotope stages (MIS) are indicated at the top.

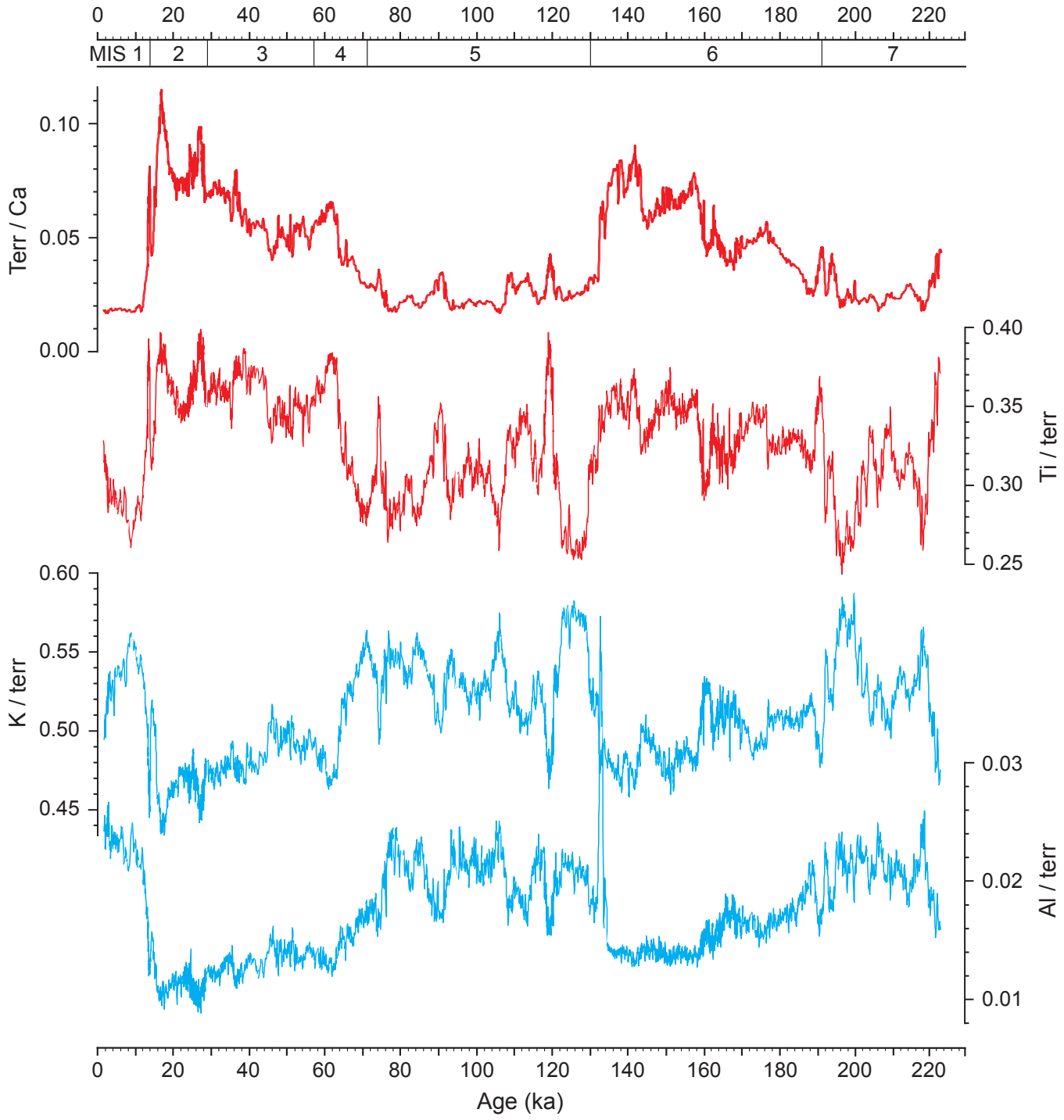

Figure S3. XRF sediment geochemistry data from core KL23 (five-point running average). Terr / Ca gives the ratio between the sum of terrigenous elements and Ca. Ti, K, and Al were normalized by calculating their portion on the terrigenous elements. Marine isotope stages (MIS) are indicated at the top.

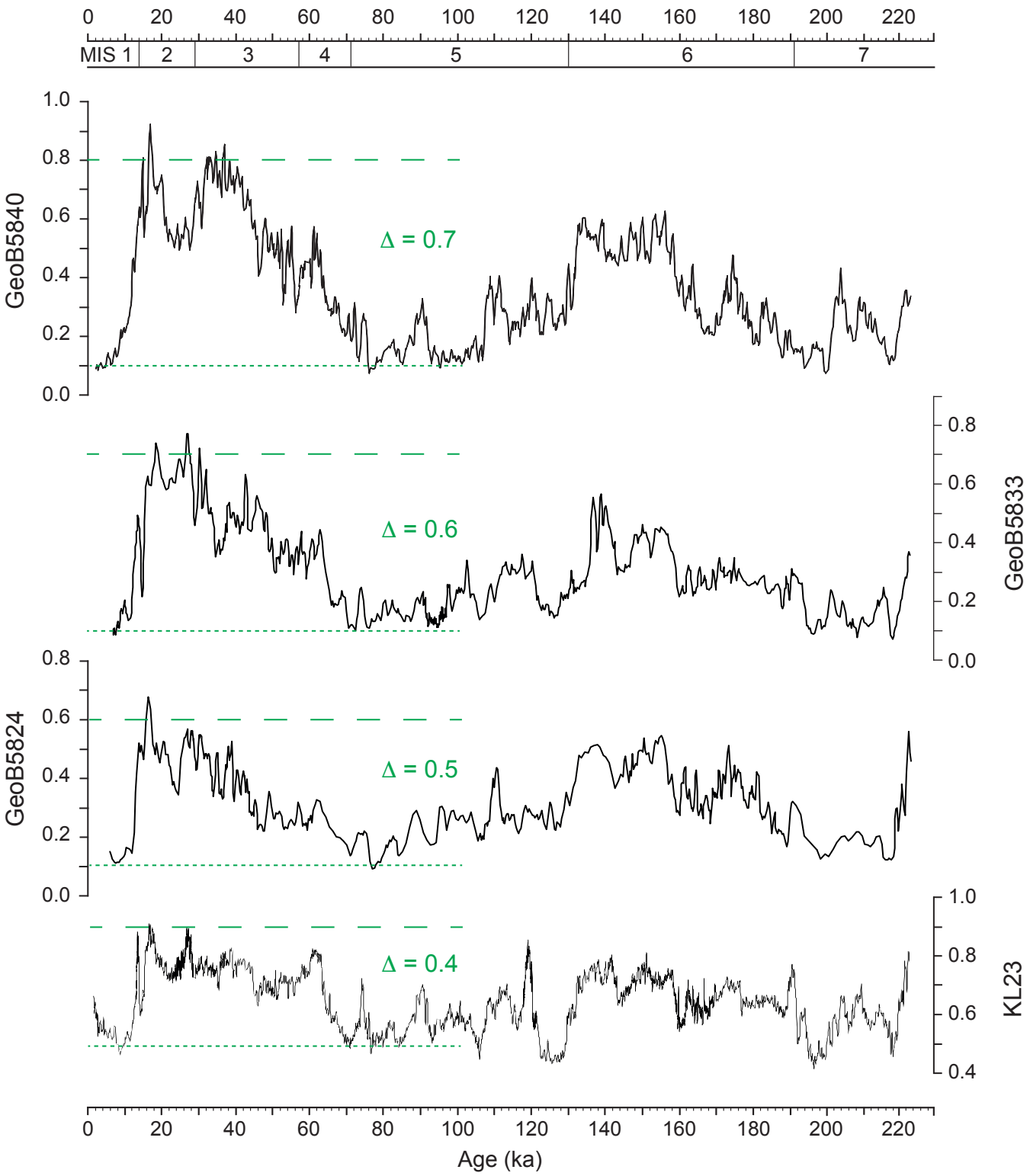

Figure S4. Ti / K ratios from XRF core scanning along a N-S core transect in the northern Red Sea. Data from GeoB cores are from Arz et al. (2001). XRF data are stored in the Pangaea data base (https://doi.org/10.1594/PANGAEA.90845; https://doi.org/10.1594/PANGAEA.90846, and https://doi.org/10.1594/PANGAEA.90848). The age models of the GeoB cores have been tuned to KL23 starting with the initial stratigraphies as provided in Arz et al. (2001) and performing subsequent graphical finetuning of the XRF Ti / K ratios with QAnalySeries (Kotov, S. and Pälike, H.: QAnalySeries – a cross-platform time series tuning and analysis tool, AGU, https://ui.adsabs.harvard.edu/abs/2018AGUFMPP53D1230K/abstract, 2018). Marine isotope stages (MIS) are indicated at the top.

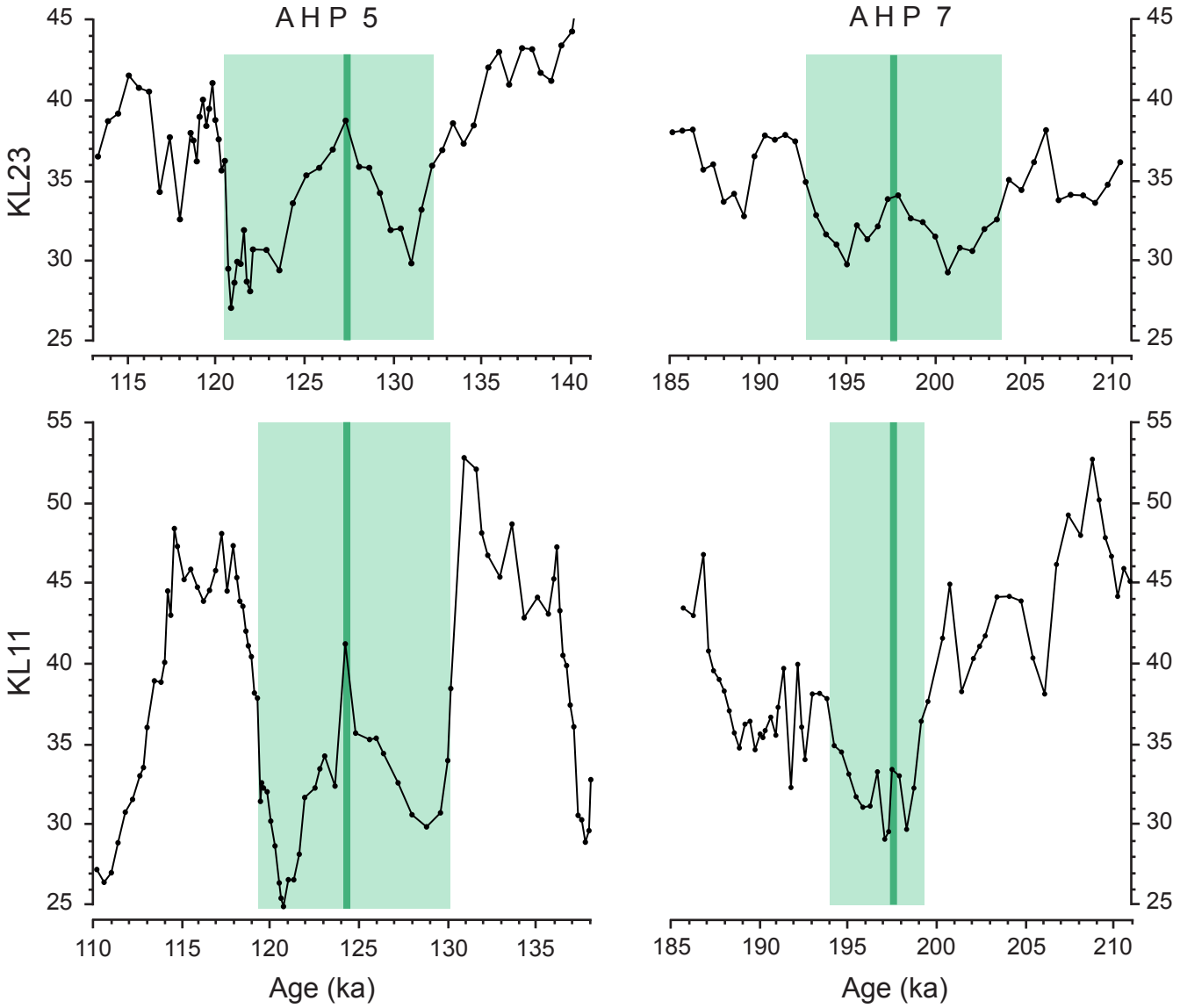

Figure S5. Smectite concentrations in core KL23 from the northern Red Sea and KL11 from the central Red Sea for intervals including AHP5 (left) and AHP7 (right). The AHPs are marked by green shading, the peak humid phases by a green line. Data for KL11 are from Ehrmann et al. (2024). The different timing of the AHPs is probably due to inconsitencies in the age models.