

Supplement of *Clim. Past*, 16, 283–298, 2020
<https://doi.org/10.5194/cp-16-283-2020-supplement>
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Supplement of

Past African dust inputs in the western Mediterranean area controlled by the complex interaction between the Intertropical Convergence Zone, the North Atlantic Oscillation, and total solar irradiance

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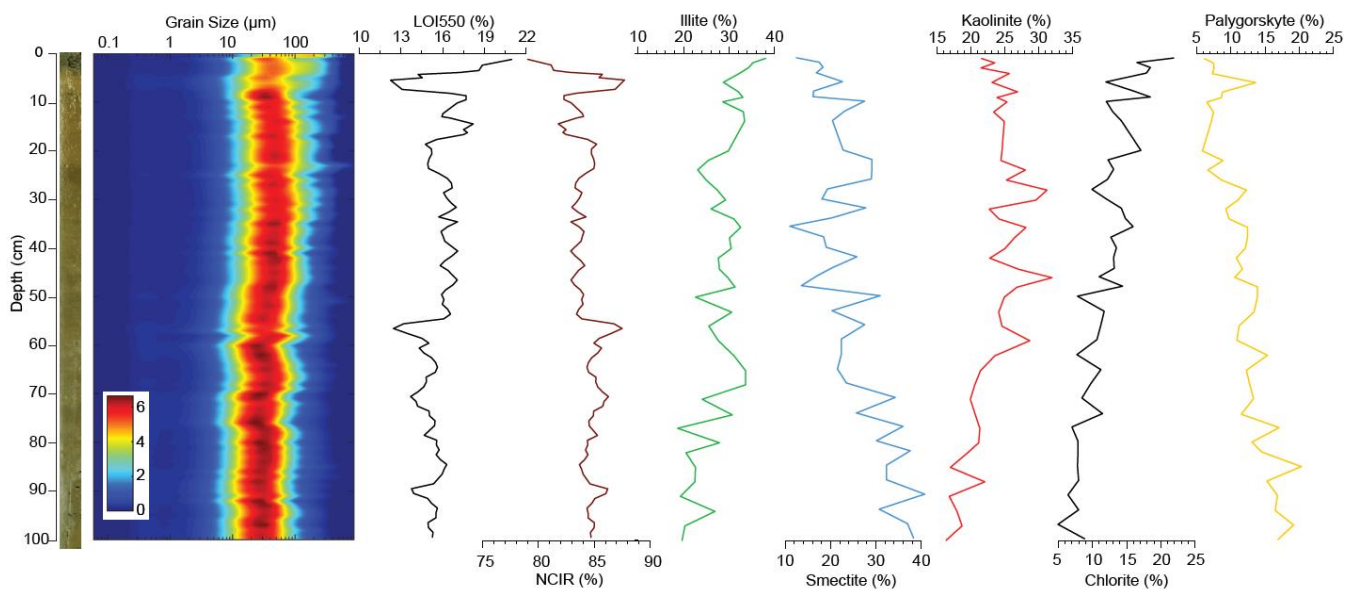
Supplementary Information:

Past African dust inputs in Western Mediterranean area controlled by the complex interaction between ITCZ, NAO and TSI
Sabatier et al.,

Sample Name	IGSN (www.geosamples.org)	Cyber-core Repository (url)	Inside diameter (mm)	Length (cm)	Bathymetry (m)	Repository	PI	Analytical Data	Ontology Reference	Ontology Reference (url)	
<u>BAS13_P1</u> Core	IEFRA0031	https://www.cybercarotheque.fr/index.php?sample=219	63	58	23	EDYT EM	B. Vanniè re	XRF <i>Radiocarbon</i>	X-ray fluorescence	http://linkd.earth/ontology#X-rayFluorescence	
									Radiocarbon	http://linkd.earth/ontology#Radiocarbon	
<u>BAS13_P3</u> Core	IEFRA0033	https://www.cybercarotheque.fr/index.php?sample=221	63	47	23	LCE	B. Vanniè re	XRF <i>Short-lived radionuclides</i>	X-ray fluorescence	http://linkd.earth/ontology#X-rayFluorescence	
									Short-lived radionuclides		
<u>BAS13_P4</u> Core	IEFRA0034	https://www.cybercarotheque.fr/index.php?sample=222	63	102	21	LCE	B. Vanniè re	XRF	X-ray fluorescence	http://linkd.earth/ontology#X-rayFluorescence	
									<i>grain size</i>	Grain size	http://linkd.earth/ontology#GrainSize
									<i>XRD Clay mineralogy</i>	X-Ray diffraction	http://linkd.earth/ontology#X-RayDiffraction
								LOI	Loss Of Ignition		
									FTIRS	Fourier transform infrared spectroscopy	
										ICP-MS	Inductively Coupled Plasma Mass Spectrometer
ICP-OES	Inductively coupled plasma atomic emission spectroscopy	http://linkd.earth/ontology#ICP-OES									

	<i>Radiocarbon</i>	Radiocarbon	http://linkd.earth/ontology#Radiocarbon
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Table S1: Lake Bastani sediment cores metadata



5 **Figure S1:** Sedimentary and mineralogical data from Lake Bastani composite core with grain-size (μm), LOI550 (%), NCIR (%), illite, smectite, kaolinite, chlorite and palygorskyte contents (%).

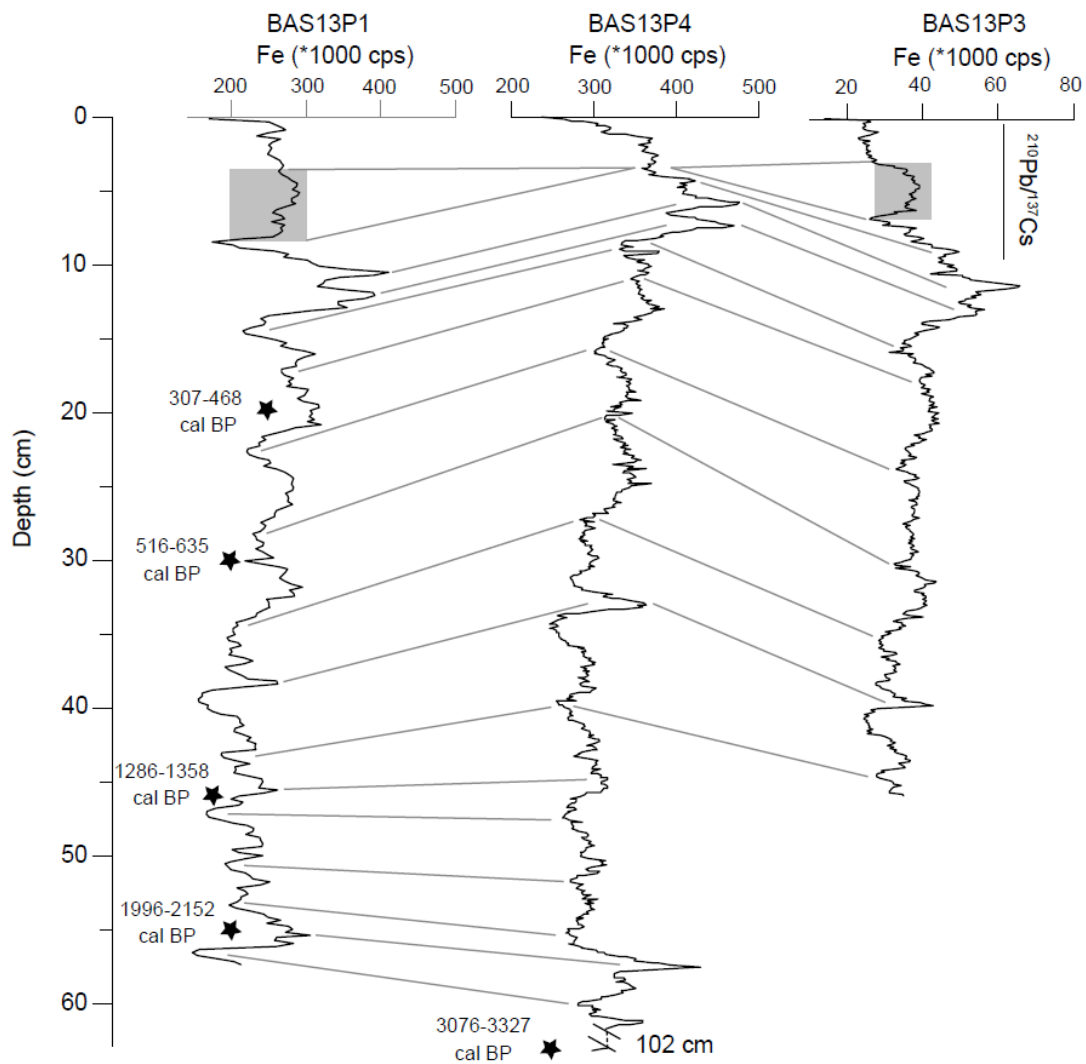


Figure S2: Fe content (cps) along BAS13P1, BAS13P4 and BAS13P3 to illustrate correlations between the three cores (grey line). The grey rectangle illustrates the 3-cm mass wasted deposit observed in cores BAS13P1 and BAS13P3 (see also Figure S4). ^{14}C calibrated age are reported as calibrated age (black stars).

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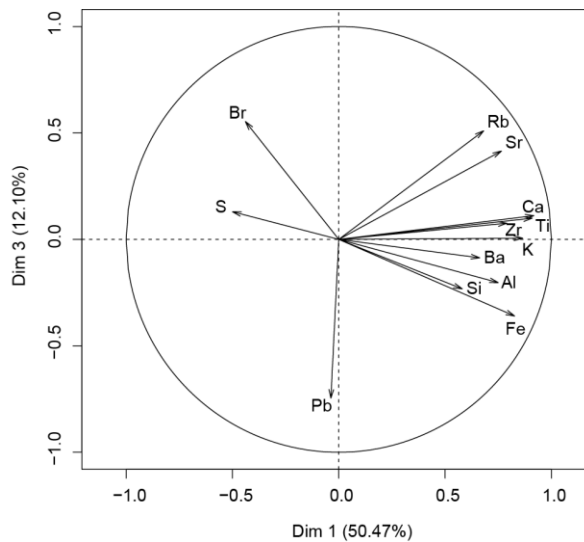
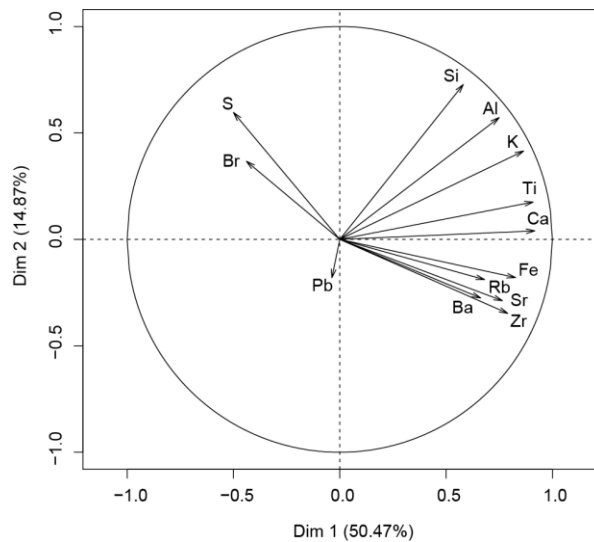


Figure S3: PCA of geochemistry data obtained via XRF core scanner analysis on BAS13P4.

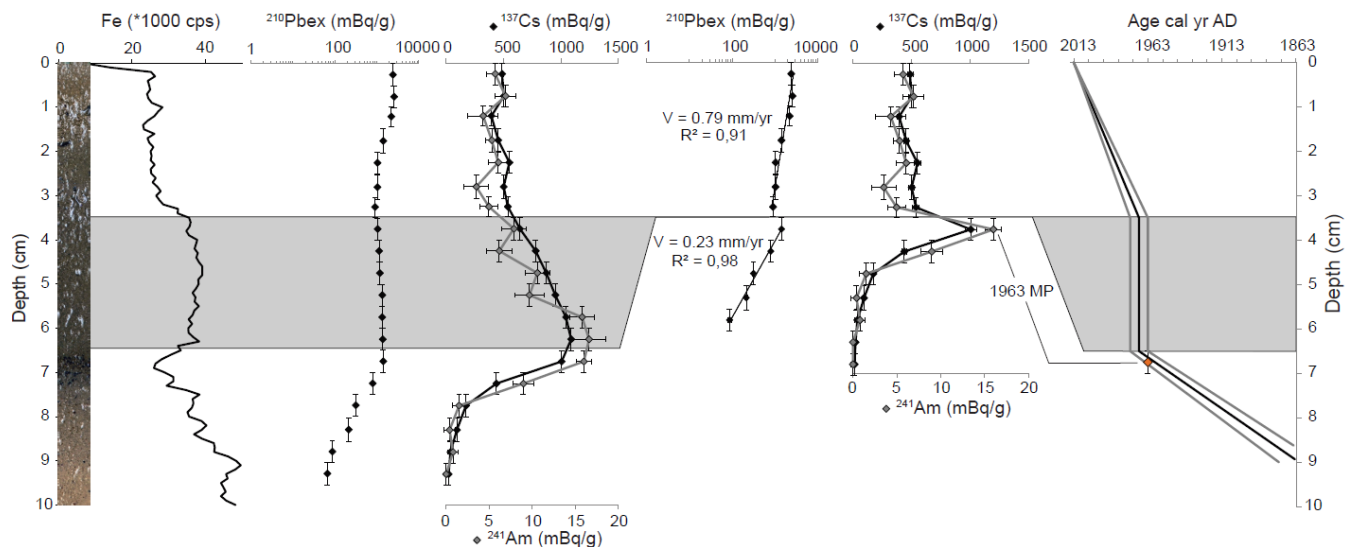


Figure S4: Chronology (with 1σ uncertainties) of the uppermost part of core BAS13P3 based on the short-lived radionuclides. The horizontal grey band corresponds to the mass wasted deposit with a constant Fe content (cps) identified in Figure S2. On the right, the application of a constant flux constant sedimentation (CFCS) model to the event-free sedimentary profile of $^{210}\text{Pb}_{\text{ex}}$.