

Supplementary material S4. Background concentrations in metals for Eastern Mediterranean sediments estimated from cores

Element	Units	BC ranges		MAd, SAd <sup>1*</sup>		NAd, MAd, SAd <sup>2</sup>		MAd, SAd <sup>3</sup>		NAd <sup>4</sup>	NAd <sup>6</sup>	NAd <sup>8</sup>	Ionian <sup>9</sup>	Ionian <sup>10</sup>	Ionian <sup>11*</sup>	N Aegean <sup>12</sup>	S Aegean <sup>13</sup>	S Aegean <sup>13</sup>	Lev <sup>11*</sup>	Lev <sup>14</sup>	EMed****		
		BCMin	BCMax	Min	Max	Min	Max	Min	Max		Trieste gulf					Thermaikos gulf	Saronikos gulf	Saronikos gulf		median	Min	Max	
Cd	µg kg <sup>-1</sup> dw	118	600	200	600									118								56	92
Hg	µg kg <sup>-1</sup> dw	12	130	17	29					72	130 <sup>(7)</sup>				50				14	12	31	107	
Pb	µg kg <sup>-1</sup> dw	10000	46000	15700	19250	10000	23000	20000	34000	18900	***	20000	11650			17500	46000	14000		11170	4920	13932	
As	µg kg <sup>-1</sup> dw	4000	19100	4000	19100			5000	10000					8150	7800	11000	8000						
Cr	µg kg <sup>-1</sup> dw	35990	194200	126000	163500	57000	152000	148000	191000	141000	80000	142000		35990	194200	112000	158000						
Cu	µg kg <sup>-1</sup> dw	4100	49150	19900	37250	12000	30000	29000	37000		16000	16000	49150	35510	4100	22000	18000						
Ni	µg kg <sup>-1</sup> dw	23000	195000	126360	185800	23000	103000	119000	195000		148000	91000		25280	76800	106000	176000						
Zn	µg kg <sup>-1</sup> dw	34600	103000	71000	87000	54000	95000	101000	103000		72000	80000	42550		34600	78000	49000						
Co	µg kg <sup>-1</sup> dw	11800	29100	19600	29100			15000	22000					24595	11800	15000	14000						
V	µg kg <sup>-1</sup> dw	34465	109000					88000	109000					34465	50900	77000	55000						
Sedimentation rate	mm yr <sup>-1</sup>			1.8	3.1	0.67	5.2			1-2 <sup>(5)</sup>	1-2.5	1.2	0.17		1.8		0.06	0.03**	1.22-1.28				
Core section (age)	cm(yr)			22-28,38-42		(>1910)		(Holocene)		40-80	49-51	(1896-1916)	7-10	5.5-10.5	8-10	17.5-19.5	>40cm	12-22.5	8-10	(1510-1852)			
Silt+clay	%			87.06	100	89	100			95-98	67	≥60		95.5	23.22					98.3			
Organic carbon	%					0.3	1				0.38			0.92	0.16				0.445				
Aluminium content	%			5.1	6.3			5.69	6.65		2.62	7.2	4.13	2.1		4.2	4.43	3.49					
Bottom depth	m			169.8	1030	27	599	150	1030	10-25	~21-22	10.5	2800	3375						300			
Stations selected				4 cores		8 cores		4 cores			ISO45	E1	EA	Thetis	WP4	IP30	S21	SARC-18	WP5				

EMed: Eastern Mediterranean Sea; NAd: North Adriatic Sea; MAd: Middle Adriatic Sea; SAd: South Adriatic Sea; Ionian: Ionian Sea; N Aegean: North Aegean Sea; S Aegean: South Aegean Sea; Lev: Levantine Sea.

<sup>1</sup>Ilijanic et al., 2014; <sup>2</sup>Lopes-Rocha et al., 2017a; <sup>3</sup>Lucchini et al., 2003; <sup>4</sup>Giani et al., 1994; <sup>5</sup>from Frignani et al., 2005; <sup>6</sup>calculated from Covelli & Fontolan, 1997; <sup>7</sup>Covelli et al., 2006; <sup>8</sup>Barra et al., 2020<sup>9</sup>median calculated from Angelidis et al., 2011; <sup>10</sup>median values from Olivieri et al., 2013; <sup>11</sup>averages calculated from Ogrinc et al., 2007\*; <sup>12</sup>median calculated from Karageorgis et al., 2005a;<sup>13</sup>Karageorgis et al., 2020; <sup>14</sup>median calculated from Azoury et al., 2013;

\*BC derived from the data provided by the authors \*\*Van Santwoort 1996 in Ogrinc 2007 \*\*\*value =116 excluded as presumably affected by anthropogenic activities

\*\*\*\*UNEP-MAP, 2021: not used for BC ranges