

Supplementary material S8. Background concentrations in PAHs for Eastern Mediterranean sediments estimated from cores

Compound	Unit	BC ranges		NAd ¹		NAd ²	NAd ³	NAd ⁴	SAd ²	S Aegean ⁵		Lev ⁶	EMed**	
		BCMin	BCMax	West coast		West coast	Trieste Gulf	Trieste Gulf ⁴	average	Elefsis bay		median	Min	Max
				Min	Max	West coast	Trieste Gulf median	Min		Max				
Naphthalene	µg kg ⁻¹ dw	4.17	17.88			5.36	17.88	7.40	4.17				2	2.5
Acenaphthene	µg kg ⁻¹ dw	0.20	1.00			0.91	0.98	1.00	0.57	0.20	0.80			11.5
Acenaphthylene	µg kg ⁻¹ dw	1.10	1.63			0.51	1.41	1.10	1.63				0.4	1.5
Fluorene	µg kg ⁻¹ dw	LOD(0.6)	4.33	LOD	LOD	4.33	3.37	0.70	2.60	0.60	1.00		0.4	6
Phenanthrene	µg kg ⁻¹ dw	1.04	30.13	9.90	15.20	30.13	3.37	27.10	3.62	7.30	3.30	1.04	0.8	15
Anthracene	µg kg ⁻¹ dw	LOD(0.24)	2.40	1.10	1.50	LOD	0.63	2.40	LOD	1.30	0.30	0.24	0.7	8.5
Fluoranthene	µg kg ⁻¹ dw	0.39	23.16	15.50	14.50	23.16	3.74	9.90	0.39	9.30	1.90	1.15	2	12
Pyrene	µg kg ⁻¹ dw	0.56	18.76	9.60	11.60	18.76	7.48	15.80	0.56	7.40	2.50	1.39	0.4	12.5
Benzo[a]anthracene	µg kg ⁻¹ dw	0.21	10.63			10.63	5.52	7.60	0.21	1.70	8.90	0.63		23
Chrysene	µg kg ⁻¹ dw	0.75	19.05	9.50	3.90	19.05	6.09	0.80	1.01	9.00	1.70	0.75	1.6	6
Benzo[a]pyrene	µg kg ⁻¹ dw	LOD(0.3)	10.10	9.00	9.70	10.10	2.28	LOD	0.33	3.50	1.60	0.31	1.8	17.6
Benzo[ghi]perylene	µg kg ⁻¹ dw	LOD(0.5)	19.04	17.30	18.90	19.04	4.83	LOD	0.84			0.49	9	100
Indeno[1,2,3-cd]pyrene	µg kg ⁻¹ dw	LOD(0.2)	12.70	LOD	12.70	12.15	3.78	LOD	0.72	0.20	6.10	0.53	2	12.5
Dibenzo[ah]anthracene	µg kg ⁻¹ dw	LOD(0.1)	3.60	2.30	2.40	3.60	0.33	LOD	0.55	0.20	0.70	0.05		7
Perylene	µg kg ⁻¹ dw	0.60	7.69							2.40	0.60	7.69		
Benzo[b]fluoranthene	µg kg ⁻¹ dw	1.10	25.21			25.21		1.10	1.12				9.6	50
Dibenzothiophene	µg kg ⁻¹ dw	0.04						LOD(0.1)				0.04		
Benzo[k]fluoranthene	µg kg ⁻¹ dw	0.36	10.24			10.24	5.20	0.50	0.37			0.36	19.5	27
TPAH	µg kg ⁻¹ dw	14.92	193.19	93.60	113.50	193.19	125.33	81.20	18.70	43.10	29.40	14.92		
Sedimentation rate	mm yr ⁻¹			~2 *	~2 *		6	1.8		2		1.22-1.28		
Core section(age)	cm (yr)			30-35	30-35	(1914)	79.5-195	118.5	(1869-1989)	30-32	33-35	19.5-57.8		
Organic carbon	%					0.9	1.2		0.45	1.41	0.64			
Bottom depth	m					27	~20	~20	1040	<35m	<35m	300		
Stations selected				53	62	9	GT2	GT3	2	K	I	C1		

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.

¹Caricchia et al., 1993; ²Combi et al, 2020; ³Notar et al., 2001; ⁴Heath et al., 2006; ⁵Hatzianestis et al., 2004; ⁶Azoury et al., 2013

*derived from Frignani et al., 2005

**UNEP-MAP, 2021: not used fo BC ranges

LOD: Limit of detection