

Table S1. Mean concentration and standard deviation of normal alkanes ($\mu\text{g/g dw}$) and related parameters in coastal and intertidal sediment samples from the Makuran coasts

Compound	Intertidal sediments Sirik	Coastal sediments Sirik	Coastal sediments Azini	Coastal sediments Mangeli	Coastal Sediment Kouh Mobarak	Intertidal sediments Jask	Coastal sediments Jask
<i>n-C₁₂</i>	5.84 ± 5.95	6.80 ± 7.56	1.03 ± 0.79	1.60 ± 1.12	2.94 ± 2.36	1.62 ± 1.33	1.41 ± 1.18
<i>n-C₁₃</i>	9.51 ± 4.24	37.26 ± 30.91	3.61 ± 1.70	3.52 ± 0.99	10.27 ± 6.16	4.75 ± 3.66	3.68 ± 0.89
<i>n-C₁₄</i>	51.79 ± 25.13	401.78 ± 287.37	10.86 ± 8.66	25.08 ± 16.76	78.93 ± 61.09	40.69 ± 37.48	28.72 ± 11.30
<i>n-C₁₅</i>	49.28 ± 18.59	280.04 ± 131.75	15.46 ± 11.25	39.92 ± 9.63	51.99 ± 38.38	26.10 ± 27.99	37.54 ± 13.87
<i>n-C₁₆</i>	78.73 ± 23.09	130.95 ± 26.71	27.30 ± 12.70	53.41 ± 11.08	56.30 ± 16.39	25.68 ± 18.58	69.97 ± 11.65
<i>n-C₁₇</i>	48.92 ± 6.48	72.59 ± 4.37	57.59 ± 7.00	48.80 ± 12.11	53.03 ± 10.60	23.90 ± 9.38	67.53 ± 14.45
<i>n-C₁₈</i>	54.88 ± 10.98	78.12 ± 5.44	45.62 ± 9.27	54.11 ± 11.34	57.14 ± 9.11	36.14 ± 5.28	70.16 ± 21.75
<i>n-C₁₉</i>	30.69 ± 3.96	39.84 ± 5.47	22.71 ± 6.98	34.82 ± 2.82	31.19 ± 7.76	17.93 ± 1.23	40.67 ± 10.09
<i>n-C₂₀</i>	40.82 ± 3.96	55.09 ± 1.85	24.17 ± 7.33	41.01 ± 6.35	40.16 ± 0.25	22.05 ± 7.35	42.61 ± 12.99
<i>n-C₂₁</i>	78.62 ± 10.01	104.46 ± 20.44	28.37 ± 7.20	46.07 ± 2.69	66.97 ± 3.54	23.52 ± 1.54	47.97 ± 9.07
<i>n-C₂₂</i>	278.59 ± 30.46	378.42 ± 67.27	66.50 ± 18.49	106.06 ± 19.56	215.62 ± 22.38	67.74 ± 7.03	134.22 ± 21.79
<i>n-C₂₃</i>	739.34 ± 119.55	1067.88 ± 185.67	160.79 ± 46.36	241.31 ± 58.24	592.14 ± 65.87	163.03 ± 23.95	335.99 ± 49.26
<i>n-C₂₄</i>	1548.89 ± 134.51	2208.28 ± 362.42	307.86 ± 98.86	464.44 ± 127.09	1210.74 ± 133.77	316.51 ± 46.33	671.60 ± 97.19
<i>n-C₂₅</i>	2353.79 ± 166.19	3380.90 ± 525.04	455.75 ± 148.95	680.45 ± 177.75	1812.88 ± 193.26	462.57 ± 71.25	981.18 ± 135.90
<i>n-C₂₆</i>	2746.20 ± 180.29	4019.61 ± 603.65	515.60 ± 179.69	777.83 ± 218.68	2097.37 ± 206.84	528.67 ± 83.35	1128.21 ± 171.44
<i>n-C₂₇</i>	2720.98 ± 184.15	4063.03 ± 618.72	514.66 ± 184.27	777.57 ± 218.57	2094.05 ± 202.07	521.43 ± 97.91	1102.05 ± 163.84
<i>n-C₂₈</i>	2315.14 ± 132.11	3455.64 ± 523.89	426.39 ± 154.56	647.83 ± 184.48	1762.72 ± 169.94	444.64 ± 87.32	924.33 ± 147.96
<i>n-C₂₉</i>	1828.32 ± 152.29	2794.56 ± 452.73	366.55 ± 134.36	543.87 ± 153.53	1424.77 ± 151.51	370.90 ± 71.82	764.45 ± 119.61
<i>n-C₃₀</i>	1462.35 ± 85.43	2067.19 ± 356.62	266.96 ± 97.86	407.99 ± 119.52	1059.59 ± 127.20	291.10 ± 51.33	588.42 ± 97.71
<i>n-C₃₁</i>	1035.29 ± 147.34	1637.20 ± 286.16	268.66 ± 92.25	346.38 ± 102.00	850.84 ± 114.18	239.26 ± 36.94	481.51 ± 75.30
<i>n-C₃₂</i>	801.47 ± 134.70	1283.62 ± 229.52	176.90 ± 60.03	275.02 ± 81.30	669.78 ± 101.35	192.70 ± 25.77	281.51 ± 199.29
<i>n-C₃₃</i>	540.64 ± 30.27	753.96 ± 140.66	142.04 ± 39.20	180.14 ± 67.15	400.95 ± 73.55	117.66 ± 12.78	246.03 ± 27.10
<i>n-C₃₄</i>	237.68 ± 14.27	359.11 ± 67.02	62.11 ± 2.27	89.65 ± 35.64	182.28 ± 38.18	57.26 ± 7.61	119.34 ± 6.55
Pr	34.57 ± 8.15	51.72 ± 3.34	30.54 ± 6.29	33.90 ± 11.94	37.13 ± 6.64	17.21 ± 5.50	48.32 ± 9.94
Ph	48.88 ± 17.22	69.82 ± 3.71	47.00 ± 5.91	52.64 ± 16.58	50.92 ± 10.33	31.05 ± 5.69	81.33 ± 27.34
Σn-Alkanes ($\mu\text{g/g dw}$)	19057.76±1243.60	28676.33 ±4046.17	3967.48 ± 1290.71	5886.86 ± 1585.77	14822.67 ± 1134.72	3995.85 ± 599.76	8169.11 ± 1215.32

CPI	0.95 ± 0.03	0.96 ± 0.01	1.02 ± 0.01	0.97 ± 0.01	0.97 ± 0.01	0.94 ± 0.01	0.98 ± 0.05
Pr/Ph	0.74 ± 0.17	0.74 ± 0.04	0.65 ± 0.05	0.64 ± 0.02	0.75 ± 0.19	0.55 ± 0.14	0.62 ± 0.15
nC₁₇/Pr	1.44 ± 0.16	1.40 ± 0.05	1.91 ± 0.15	1.48 ± 0.18	1.42 ± 0.07	1.37 ± 0.13	1.40 ± 0.06
nC₁₈/Ph	1.18 ± 0.24	1.12 ± 0.08	0.97 ± 0.11	1.06 ± 0.20	1.13 ± 0.09	1.21 ± 0.36	0.88 ± 0.24
LMW/HMW	0.04 ± 0.00	0.06 ± 0.02	0.09 ± 0.02	0.09 ± 0.01	0.05 ± 0.01	0.08 ± 0.03	0.07 ± 0.01

Table S2. Mean concentration and standard deviation of PAH compounds (ng/g dw) and related parameters in surface coastal and intertidal sediments from the Makuran coasts

Compound	Intertidal sediments Sirik	Coastal sediments Sirik	Coastal Sediments Azini	Coastal sediments Mangeli	Coastal Sediment Kouh Mobarak	Intertidal sediments Jask	Coastal sediments Jask
Naphthalene	116.71 ± 36.35	72.79 ± 16.68	105.74 ± 66.69	82.29 ± 14.13	159.26 ± 45.25	80.67 ± 25.75	85.10 ± 4.91
2M-Naphthalene	30.69 ± 14.06	60.76 ± 10.79	46.23 ± 29.29	30.10 ± 18.05	111.25 ± 55.14	21.26 ± 6.15	31.12 ± 4.29
1M-Naphthalene	26.09 ± 5.79	16.46 ± 4.66	8.32 ± 1.39	13.80 ± 8.28	120.22 ± 89.03	16.10 ± 7.21	79.22 ± 71.91
2,6DM-Naphthalene	50.82 ± 10.18	881.71 ± 225.64	329.38 ± 282.70	766.59 ± 148.02	683.34 ± 404.88	40.16 ± 14.01	704.60 ± 162.68
Acenaphthylene	25.31 ± 18.05	442.95 ± 46.15	51.15 ± 33.30	172.46 ± 5.35	98.31 ± 25.11	28.58 ± 22.84	72.05 ± 6.01
Acenaphthene	290.99 ± 70.79	4433.33 ± 744.88	831.03 ± 206.49	1174.22 ± 604.81	1502.79 ± 869.96	52.15 ± 7.77	1191.95 ± 589.11
2,3,5TM-Naphthalene	1.96 ± 0.08	11.85 ± 12.68	6.18 ± 2.22	5.07 ± 4.39	21.28 ± 8.27	1.40 ± 1.42	1.28 ± 0.22
Fluorene	2.06 ± 0.19	2.75 ± 1.34	2.25 ± 0.31	1.42 ± 1.54	4.56 ± 2.14	4.86 ± 1.93	0.99 ± 0.32
Dibenzothiophene	8.20 ± 4.94	3.60 ± 3.70	0.89 ± 0.31	2.56 ± 3.69	9.81 ± 13.79	1.02 ± 0.96	2.11 ± 0.27
Phenanthrene	3.17 ± 0.24	6.97 ± 5.69	4.35 ± 3.46	3.85 ± 5.49	9.43 ± 13.15	0.70 ± 0.28	1.69 ± 0.44
Anthracene	2.73 ± 0.37	6.07 ± 7.14	2.49 ± 2.30	1.11 ± 1.32	4.45 ± 4.82	0.46 ± 0.32	1.39 ± 0.12
3-Methylphenanthrene	3.64 ± 1.12	4.10 ± 3.10	3.75 ± 2.02	3.05 ± 3.72	10.94 ± 16.62	1.26 ± 1.14	3.43 ± 2.05
2-Methylphenanthrene	24.67 ± 4.03	23.49 ± 17.19	21.52 ± 10.73	15.25 ± 17.32	56.51 ± 85.14	8.30 ± 8.14	19.17 ± 13.49
9-Methylphenanthracene	20.68 ± 2.38	21.96 ± 14.74	16.35 ± 7.19	10.72 ± 11.97	57.80 ± 91.90	5.91 ± 6.01	17.41 ± 19.40
1-Methylphenanthrene	9.35 ± 1.45	9.39 ± 6.03	7.79 ± 4.17	6.00 ± 5.06	21.35 ± 31.69	3.13 ± 3.48	7.05 ± 7.02
3,6DM-Phenanthrene	5.96 ± 0.66	4.86 ± 2.96	5.13 ± 2.23	3.87 ± 2.82	11.31 ± 16.47	4.76 ± 1.88	8.93 ± 9.70
Fluoranthene	49.00 ± 30.93	50.36 ± 4.22	11.61 ± 4.31	33.75 ± 32.27	100.06 ± 150.03	19.47 ± 12.51	32.31 ± 23.44

Pyrene	44.14 ± 26.78	40.73 ± 4.23	37.20 ± 17.40	31.68 ± 30.38	84.46 ± 104.95	19.13 ± 14.25	46.65 ± 44.05
Benzo(a)Fluorene	7.48 ± 0.44	33.59 ± 22.60	11.30 ± 2.04	7.68 ± 4.38	17.57 ± 12.92	4.88 ± 3.19	15.52 ± 0.86
1M-Pyrene	2.48 ± 0.39	1.65 ± 0.29	3.51 ± 2.04	1.52 ± 1.14	3.71 ± 4.92	1.51 ± 1.96	3.26 ± 2.10
Benzo(a)anthracene	250.83 ± 46.02	1757.68 ± 383.00	729.49 ± 162.87	1158.11 ± 111.79	710.25 ± 531.53	99.11 ± 23.50	731.25 ± 205.32
Chrysene+Triphenylene	106.95 ± 49.50	19.79 ± 11.43	47.29 ± 28.19	479.99 ± 456.29	277.23 ± 60.89	65.23 ± 55.27	307.31 ± 279.57
Benzo (b) Fluoranthene	1.53 ± 0.38	19.14 ± 16.58	1.53 ± 0.67	9.34 ± 12.35	27.27 ± 13.17	0.81 ± 0.27	4.42 ± 1.29
Benzo[k]Fluoranthene	25.01 ± 6.84	82.29 ± 13.13	107.49 ± 30.54	42.26 ± 46.29	37.03 ± 10.73	19.16 ± 6.66	39.10 ± 13.74
Benzo(e) Pyrene	15.63 ± 6.16	25.43 ± 7.39	6.92 ± 4.80	6.36 ± 8.60	5.63 ± 8.23	4.63 ± 3.71	1.00 ± 0.14
Benzo (a) Pyrene	2.09 ± 0.79	11.00 ± 3.49	5.74 ± 5.61	5.55 ± 4.72	4.57 ± 2.80	1.71 ± 1.02	9.93 ± 0.51
Perylene	1.28 ± 0.49	3.48 ± 1.50	2.94 ± 1.92	10.87 ± 11.44	1.74 ± 0.50	1.18 ± 0.37	4.36 ± 0.50
Indeno[1,2,3-cd]Pyrene	1.71 ± 1.12	2.67 ± 0.18	2.66 ± 0.94	3.43 ± 1.89	2.16 ± 1.45	3.44 ± 2.13	2.93 ± 0.67
Dibenzo[a,h]Anthracene	12.02 ± 5.99	8.89 ± 6.81	35.08 ± 16.42	9.25 ± 14.49	16.94 ± 11.57	12.06 ± 2.14	18.24 ± 1.23
Benzo[ghi]Perylene	0.14 ± 0.10	0.23 ± 0.12	0.19 ± 0.05	0.19 ± 0.17	0.24 ± 0.17	0.19 ± 0.08	0.19 ± 0.10
MP/P	2.28 ± 0.28	1.15 ± 0.21	1.72 ± 0.84	1.84 ± 1.37	1.58 ± 0.52	3.18 ± 2.83	3.56 ± 2.51
EPA 16-Total PAH	934.41 ± 142.84	6957.62 ± 467.74	1975.29 ± 269.60	3208.90 ± 231.20	3039.02 ± 403.46	407.70 ± 83.44	2545.51 ± 95.75
Total PAH-30	1143.35 ± 156.11	8059.95 ± 656.15	2445.50 ± 162.35	4092.33 ± 360.01	4171.48 ± 586.39	523.19 ± 84.19	3443.98 ± 78.92
LMW/HMW	1.65 ± 0.08	1.58 ± 0.78	1.16 ± 0.16	1.12 ± 0.10	2.21 ± 0.75	1.41 ± 0.24	1.25 ± 0.12
Ant/Ant+Phe	0.07 ± 0.01	0.06 ± 0.02	0.04 ± 0.01	0.04 ± 0.03	0.06 ± 0.02	0.05 ± 0.03	0.07 ± 0.02
Phe/Ant	12.72 ± 1.40	17.18 ± 6.07	20.53 ± 2.64	28.11 ± 14.82	16.92 ± 8.71	23.67 ± 14.94	13.02 ± 2.64
Flt/Pyr	0.76 ± 0.16	0.91 ± 0.02	0.24 ± 0.09	0.80 ± 0.06	0.58 ± 0.39	0.78 ± 0.09	0.56 ± 0.27
Flu/Flu+Pyr	0.10 ± 0.10	0.06 ± 0.02	0.07 ± 0.03	0.05 ± 0.02	0.09 ± 0.05	0.26 ± 0.14	0.06 ± 0.06