



Speciation Variation and Comprehensive Risk Assessment of Metal(loid)s in Surface Sediments of Intertidal Zones

Baocui Liang, Xiao Qian, Shitao Peng, Xinhui Liu *, Lili Bai, Baoshan Cui and Junhong Bai

Table S1. Descriptions of the sampling sites.

Site	Location	Surrounding Land Type
S1	N38°15'59.52", E117°51'45.65"	fish farms
S2	N38°11'38.05", E117°48'4.34"	estuary
S3	N38° 6'39.32", E118°20'6.49"	fish farms
S4	N38° 8'11.11", E118°42'10.93"	fish farms
S5	N38° 1'15.01", E118°58'42.64"	Harbou
S6	N37°55'41.27", E119° 3'45.46"	Oilfield
S7	N37°49'11.57", E119° 6'30.97"	nature reserve
S8	N37°45'43.89", E119° 9'15.36"	estuary
S9	N37°41'44.70", E119° 2'0.42"	fish farms
S10	N37°34'52.99", E118°57'3.22"	Land reclamation
S11	N37°28'6.99", E118°56'13.06"	Industrial park
S12	N37°14'59.96", E119° 2'37.91"	fish farms

Table S2. Physicochemical properties of surface sediments in both seasons.

Time	Sites	pH	CEC ^(a) (cmo·kg ⁻¹)	OM ^(b) (g·kg ⁻¹)	Size distribution (%)		
					Clay ^(c)	Silt ^(d)	Sand ^(e)
April	S1	8.25	6.10	38.41	21.02	71.96	7.02
	S2	8.09	6.51	42.36	19.61	74.75	5.64
	S3	8.16	8.77	47.08	30.77	68.17	1.06
	S4	8.17	8.69	26.37	0.00	55.27	44.73
	S5	7.87	10.11	85.52	26.13	71.04	2.83
	S6	8.02	5.44	32.82	7.06	87.51	5.43
	S7	8.46	3.91	32.84	0.00	50.89	49.11
	S8	8.59	7.49	28.69	12.83	85.30	1.87
	S9	7.93	8.05	46.87	23.72	75.24	1.04
	S10	7.86	5.78	30.68	13.76	84.32	1.92
	S11	8.06	4.89	23.69	0.00	90.19	9.81
	S12	7.88	2.91	18.90	0.00	4.37	95.63
September	S1	8.53	11.03	46.62	2.58	71.42	26.00
	S2	7.89	8.56	37.94	0.71	78.10	21.19
	S3	9.41	11.70	47.00	2.35	83.00	14.65
	S4	7.88	11.80	55.23	1.31	74.89	23.80
	S5	8.22	9.86	41.81	0.00	63.89	36.11
	S6	8.47	12.50	52.79	1.56	92.30	6.14
	S7	8.58	5.42	28.02	0.00	36.83	63.17

S8	8.54	9.19	29.10	0.38	68.95	30.67
S9	8.57	13.80	53.76	1.75	90.72	7.53
S10	8.05	10.32	67.18	13.76	84.32	1.92
S11	8.11	9.94	48.05	0.00	68.52	31.48
S12	8.11	4.12	26.39	0.00	8.76	91.24

^{a)} CEC means cation exchange capacity; ^{b)} OM means the organic matter; ^{c)} the range of clay particle size was <3.9 µm; ^{d)} the particle size of silt ranged from 3.9 to 62.5 µm; ^{e)} the particle size of sand ranged from 62.5 to 2000 µm.

Table S3. Pearson's correlation between total heavy metal concentrations and OM contents in the sediments in April and September (n=12).

Month		As	Cd	Cr	Cu	Mn	Ni	Pb	Zn
OM	April	0.285	0.630*	0.373	0.774**	0.675*	0.656*	-0.465	0.428
	September	-0.417	0.556	0.239	0.418	0.500	0.393	0.282	0.234

* Correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).



© 2018 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).