

## Supplementary

**Fig. S1.** ATR-FTIR spectra of selected microplastic samples from two estuaries of Bohai Bay.

**Table S1.** A summary of microplastic concentrations according to the published studies in the world.

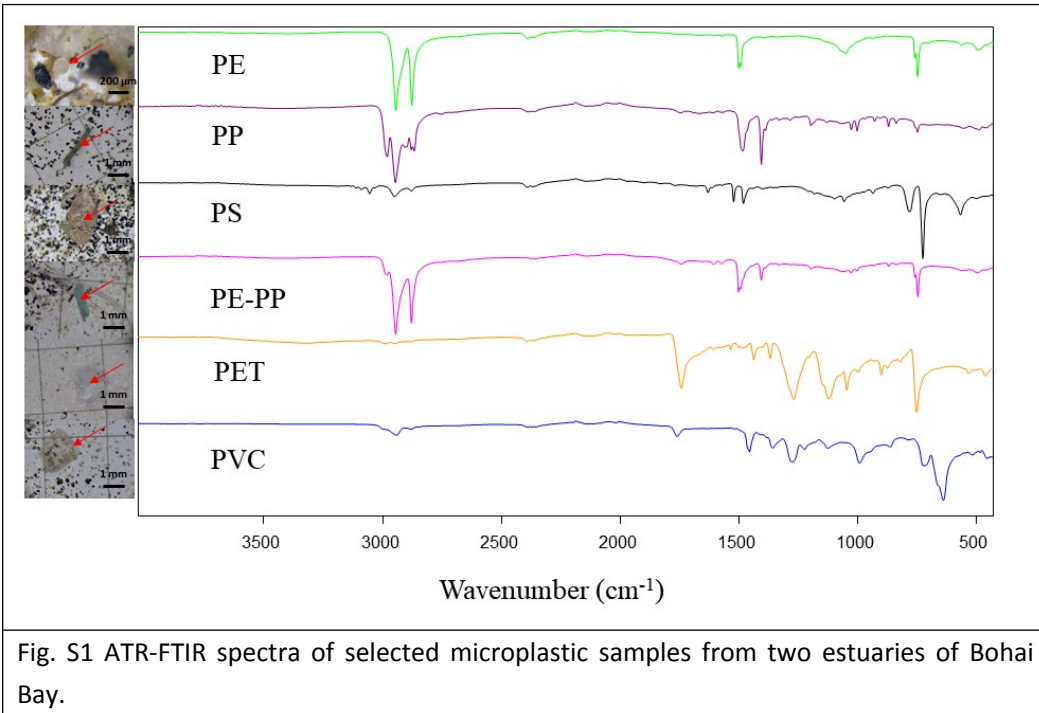


Fig. S1 ATR-FTIR spectra of selected microplastic samples from two estuaries of Bohai Bay.

Table S1 A summary of microplastic concentrations according to the published studies in the world.

Location	Location specification	Particle size (mm)	Concentrations(items/m <sup>3</sup> ; items/kg dw)	Reference
China coast	Urban estuary	< 5	680.0-1245.8	29
Bohai Sea, China	Surface water	0.33-5	0.33 ± 0.34	36
Bay of Brest, France	Surface water	< 5	0.24 ± 0.35	37
Southwest of Svalbard, Norway	Arctic water (surface)	< 5	0.34 ± 0.31	15
Southwest of Svalbard, Norway	Arctic water (sub-surface)	< 5	2.68 ± 2.95	15
Khark Island coast, Iran	Sediment	< 5	59 ± 20-217 ± 20	40
Bohai coastal, China	Beach	< 5	102.9-163.3 (127.9)	41
Persian Gulf	Littoral sediment	< 5	61 ± 49	44
Singapore coastal areas	Mangrove sediment	< 5	36.8 ± 23.6	45
Lagoon of Venice, Italy	Sediment	< 1	672-2175	42
Scapa Flow, UK	Intertidal sediment	< 5	730-2300	43
Baltic beaches, Russia	Sandy beach	0.5-5	1.3-36.3	46
Southern Portuguese shelf	Sediment	< 5	1148	20