

## Supplementary Material

### **Production, distribution, and flux of dimethyl sulfide in the East China Sea and its contribution to atmospheric sulfate aerosol**

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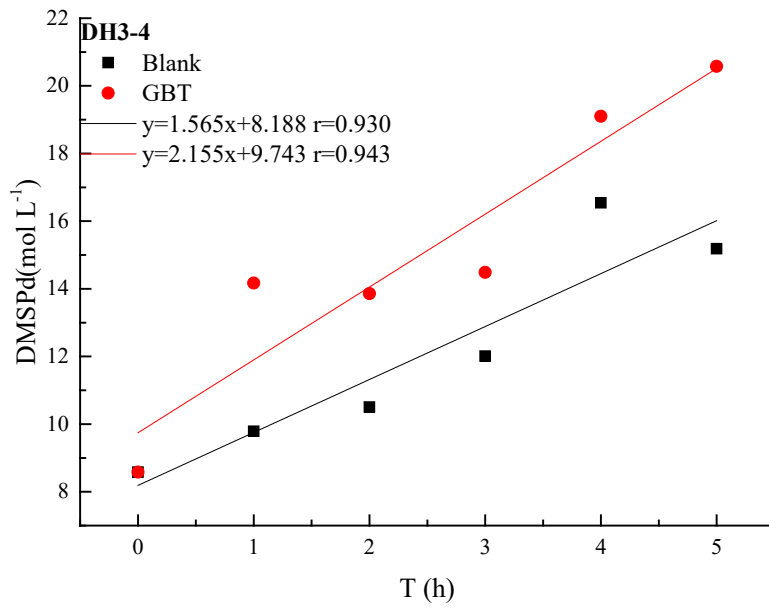
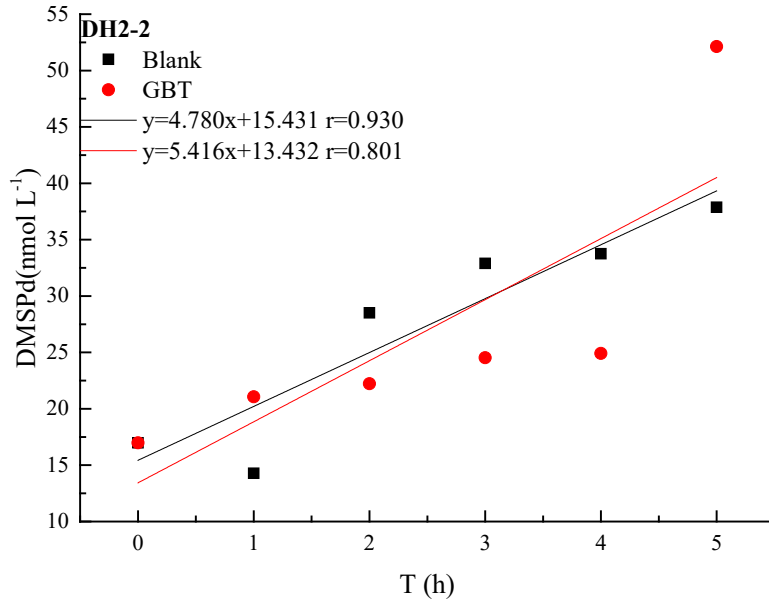
<sup>D</sup>Qinhuangdao Marine Environmental Monitoring Central Station, Qinhuangdao, Hebei 066002, China.

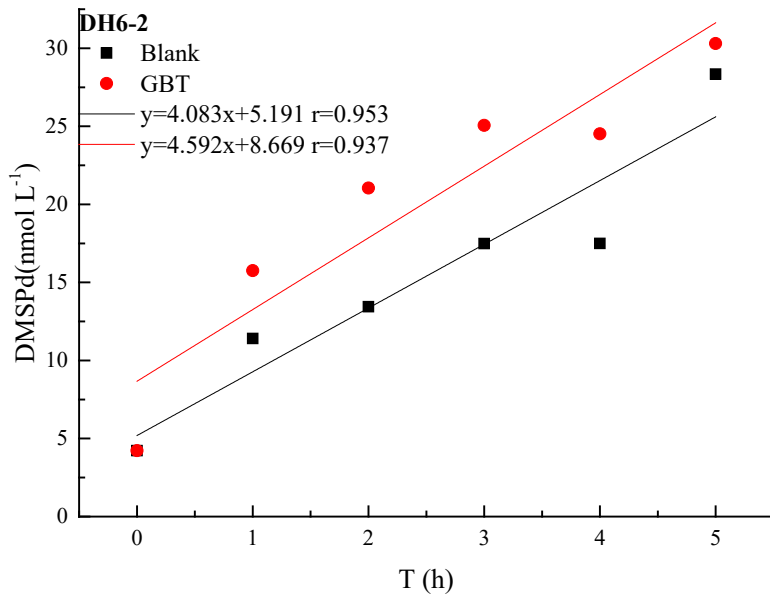
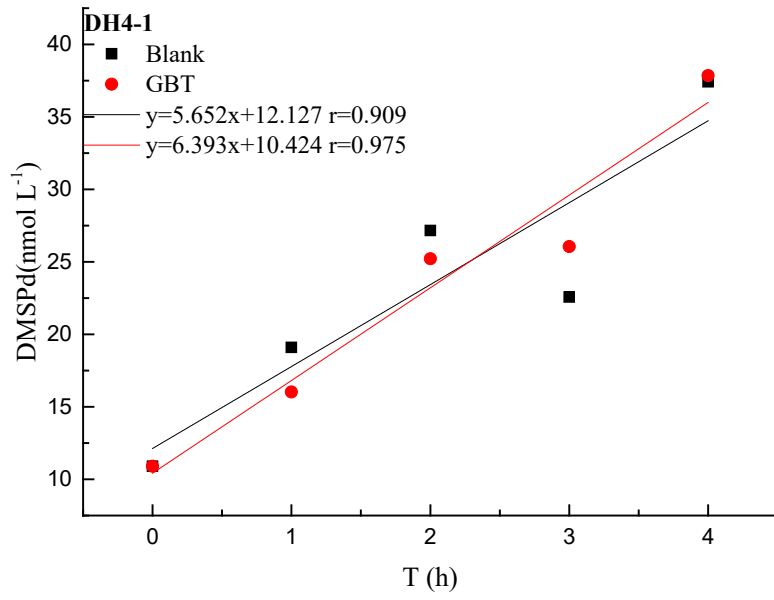
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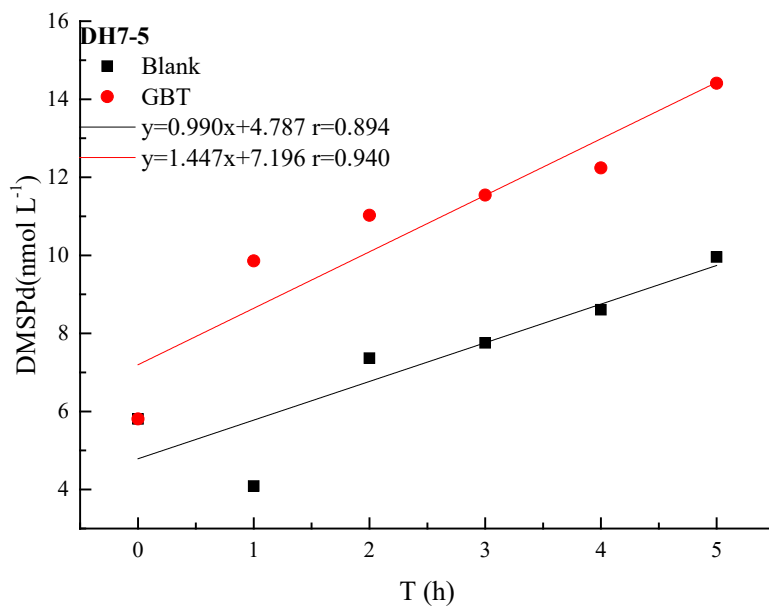
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Figure: S1, S2

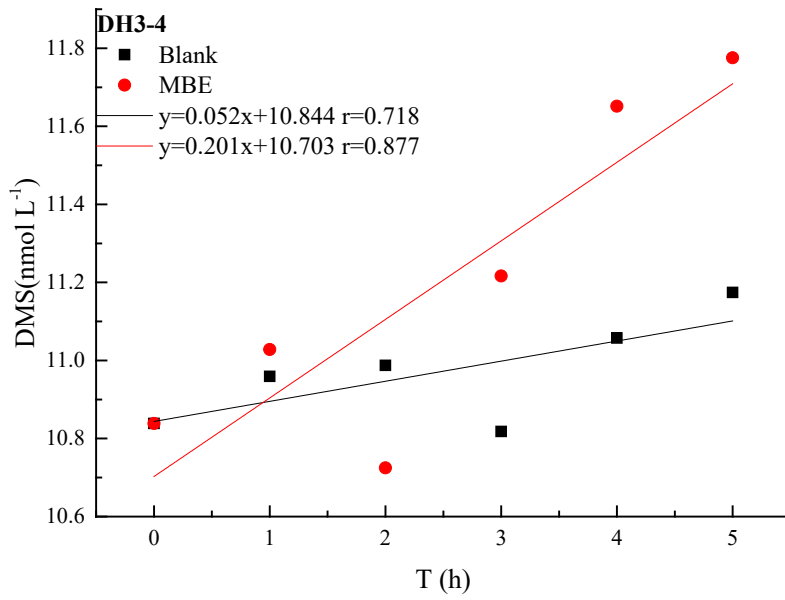
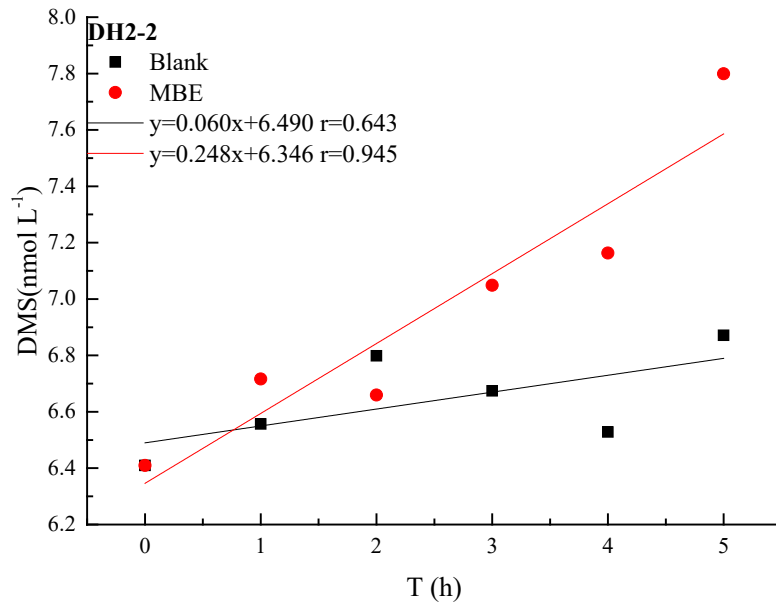
Table: S1

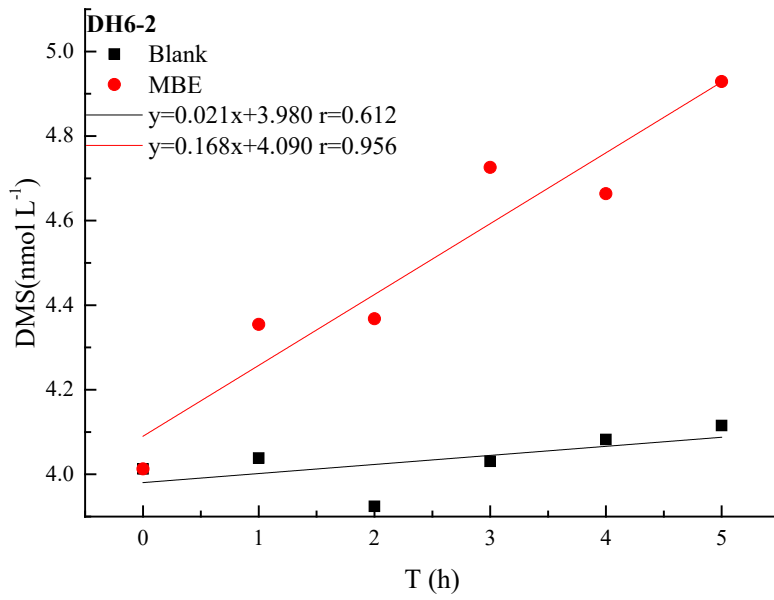
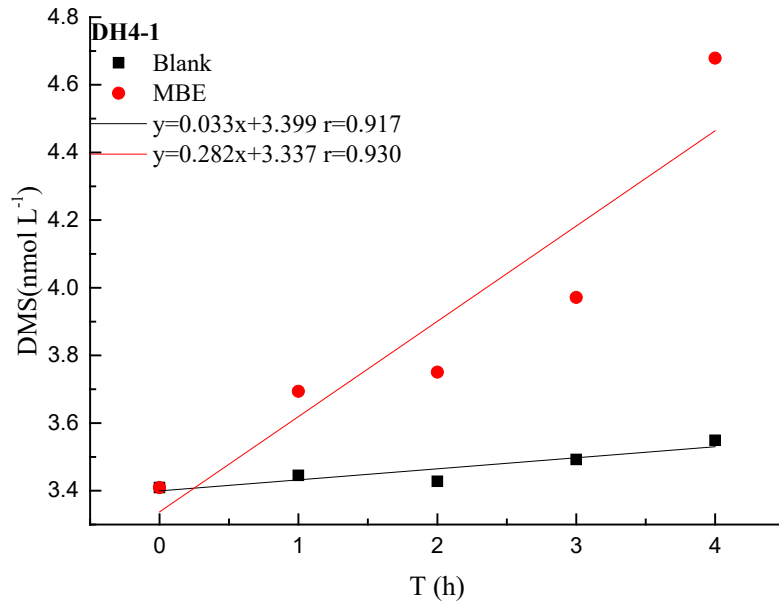


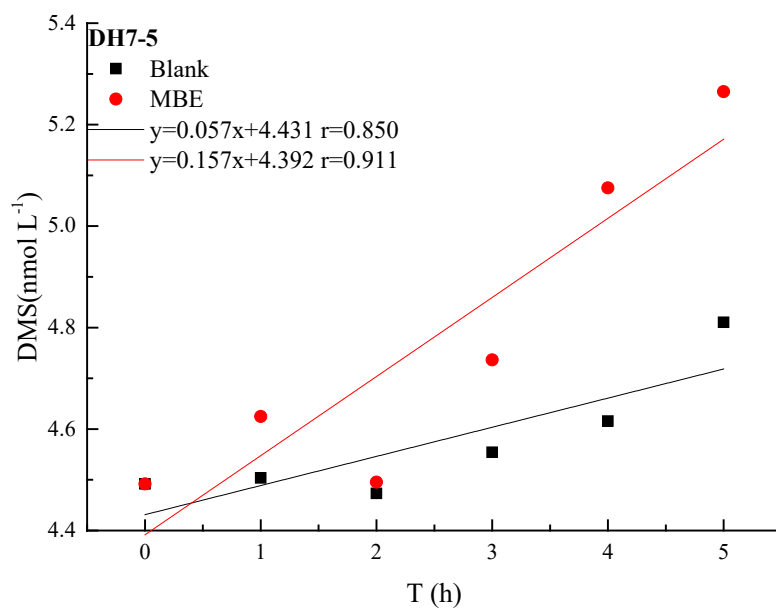




**Fig. S1.** Concentrations of DMSPd in DMSPd biological degradation incubation experiments.







**Fig. S2.** Concentrations of DMS in DMS biological production and microbial consumption incubation experiments.

**Table S1.** The concentrations of DMSPd in surface seawater, bottom seawater and sediment pore water in the ECS.

Station	DMSPd (nmol L <sup>-1</sup> )							
	Surface seawater	Bottom seawater	Pore water depth (cm)					
			1	2	3	4	5	6
DH2-2	16.98	2.98	30.59	23.61	16.66	13.92	13.01	-
DH3-1	15.95	3.48	18.56	14.60	12.58	11.08	10.42	10.18
DH4-2	2.44	1.32	23.08	21.85	19.68	16.63	14.81	14.99
DH5-1	9.82	2.64	15.14	14.65	10.88	10.26	8.53	-
DH6-1	3.84	1.44	19.68	15.95	15.75	13.52	11.01	10.32
DH7-1	8.86	1.63	58.22	32.79	26.29	16.75	10.12	-