

Summary data for DMS, DMSO and DMSO pools fluxes - NBP04-09 Antarctic Cruise December 17, 2014 - January 25, 2005

Related publications with data from NBP04-09:

Kiørbo, R.P., Steak, D., 2006. Low dissolved DMSO concentrations in seawater revealed by small volume gravity filtration and dilution sampling. *Limnol. Oceanogr.* Methods 4, 80-95.

del Valle, D.A., Kiørbo, R.P., Steak, D., 2007. Light attenuated production of dissolved DMSO by a particle-associated process in the Ross Sea, Antarctica. *Limnology & Oceanography* 52, 2495-2498.

del Valle, D.A., Kiørbo, R.P., Steak, D., 2007. Biological consumption of dimethylsulfoxide (DMSO) and its importance in a DMSO dynamic in the Ross Sea, Antarctica. *Limnol. Oceanogr.* In revision.

del Valle, D.A., Kiørbo, R.P., Steak, D., 2007. Biological consumption of dimethylsulfoxide (DMSO) by a particle- and biological-related process in the Ross Sea, Antarctica. *Deep-Sea Res.* In revision.

Kiørbo, R.P., del Valle, D.A., Steak, D., 2007. Chemical light waves for photochemical and photobiological studies. *Aquat. Sci.* 69, 360-376.

Abbreviations:

DMS dimethylsulfoxide, DMSO total dimethylsulfoxide, DMSO_{org} dissolved dimethylsulfoxide, DMSO_{part} particulate dimethylsulfoxide, DMSO_{tot} total dimethylsulfoxide, chl a chlorophyll a

DMSO_{org} was calculated as the difference between the measured DMSO and DMSO_{part}

	Lat	Lon	Depth	Pilot	DMS	DMSO	DMSO _{org}	DMSO _{part}	DMSO _{tot}	Chl a	Leucine incorporation	DMSO _{org} rate	DMSO _{part} rate	DMSO _{tot} rate	DMSO _{org} turnover	DMSO _{part} turnover	DMSO _{tot} turnover
Station 05	24-Dec-04	65.545	178.1878	1	-1	7.35	39.64	32.29	0.00	32.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 17-14	24-Dec-04	65.545	178.1878	15	-1	7.90	50.72	42.82	0.00	42.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040607	24-Dec-04	65.545	178.1878	25	-1	7.61	38.85	31.24	0.00	31.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		65.545	178.1878	35	-1	5.43	13.31	8.88	0.00	8.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		65.545	178.1878	50	-1	5.12	14.11	8.99	0.00	8.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		65.545	178.1878	75	-1	5.01	13.86	8.85	0.00	8.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Station 08a	28-Dec-04	-76.3007	179.8602	1	-1	7.58	45.00	37.42	0.00	37.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 18-13	28-Dec-04	-76.3007	179.8602	5	-1	8.03	48.47	40.44	0.00	40.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040614	28-Dec-04	-76.3007	179.8602	20	-1	5.97	35.71	29.74	0.00	29.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.3007	179.8602	40	-1	2.69	74.65	71.96	0.00	71.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.3007	179.8602	60	-1	1.70	40.03	38.33	0.00	38.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.3007	179.8602	80	-1	1.09	30.67	29.58	0.00	29.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Station 09a	30-Dec-04	-76.9994	179.8602	1	-1	16.20	84.53	68.33	0.00	68.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 18-18	30-Dec-04	-76.9994	179.8602	5	-1	13.67	87.84	74.17	0.00	74.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040620	30-Dec-04	-76.9994	179.8602	15	-1	10.18	69.50	59.32	0.00	59.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	30	-1	2.28	51.32	49.04	0.00	49.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	45	-1	0.82	25.33	24.51	0.00	24.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	70	-1	0.97	21.16	20.19	0.00	20.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Station 09b	31-Dec-04	-76.9994	179.8602	1	-1	7.24	25.42	18.18	0.00	18.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 19-10	31-Dec-04	-76.9994	179.8602	5	-1	7.24	25.42	18.18	0.00	18.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040622	31-Dec-04	-76.9994	179.8602	15	-1	2.47	43.04	40.57	0.00	40.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	30	-1	0.84	24.97	24.13	0.00	24.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	45	-1	0.90	14.51	13.61	0.00	13.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Station 09c	31-Dec-04	-76.9994	179.8602	70	-1	0.8	20.86	0.50	20.36	0.50	0.50	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 19-10	31-Dec-04	-76.9994	179.8602	150	-1	0.48	10.45	0.22	10.23	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040624	31-Dec-04	-76.9994	179.8602	15	-1	6.18	86.08	0.68	85.40	0.68	0.68	0.00	0.00	0.00	0.00	0.00	0.00
Deep Cast	31-Dec-04	-76.9994	179.8602	250	-1	0.3	15.76	0.48	15.28	0.48	0.48	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	400	-1	0.37	11.39	0.40	10.98	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	600	-1	0.33	7.27	0.37	6.90	0.37	0.37	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	800	-1	0.04	2.33	0.14	2.19	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	1000	-1	0.04	1.90	0.35	1.55	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	1200	-1	0.04	0.04	0.02	0.10	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	1400	-1	0.04	0.04	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
Station 09d	1-Jan-05	-76.9994	179.8602	1	-1	8.99	75.61	0.99	74.62	0.99	0.99	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 19-02	1-Jan-05	-76.9994	179.8602	5	-1	7.08	79.99	0.64	79.35	0.64	0.64	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040626	1-Jan-05	-76.9994	179.8602	15	-1	6.18	86.08	0.68	85.40	0.68	0.68	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	20	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	30	-1	0.45	14.51	13.06	1.45	13.06	1.45	0.00	0.00	0.00	0.00	0.00	0.00
Station 09e	1-Jan-05	-76.9994	179.8602	1	-1	0.04	84.53	0.00	84.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 22-22	1-Jan-05	-76.9994	179.8602	5	-1	7.10	84.00	0.00	84.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040628	1-Jan-05	-76.9994	179.8602	20	-1	0.07	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	30	-1	0.45	14.51	13.06	1.45	13.06	1.45	0.00	0.00	0.00	0.00	0.00	0.00
Station 09f	2-Jan-05	-76.9994	179.8602	1	-1	6.68	87.81	0.81	87.00	0.81	0.81	0.00	0.00	0.00	0.00	0.00	0.00
DMSO Time 17-08	2-Jan-05	-76.9994	179.8602	5	-1	6.68	87.81	0.81	87.00	0.81	0.81	0.00	0.00	0.00	0.00	0.00	0.00
Cast P040630	2-Jan-05	-76.9994	179.8602	15	-1	0.48	10.45	0.22	10.23	0.22	0.22	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	30	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	45	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	60	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	75	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	90	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	105	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	120	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	135	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	150	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	165	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	180	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	195	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	210	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	225	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	240	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	255	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	270	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	285	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	300	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	315	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	330	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	345	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	360	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	375	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	390	-1	0.27	22.32	21.05	1.27	21.05	1.27	0.00	0.00	0.00	0.00	0.00	0.00
		-76.9994	179.8602	405	-1	0.27	22.32	21.									