

## Supplement material

**Table 1.** Volumetric metabolism rates (GPP, CR and NCP) ( $\text{mmol O}_2 \text{ m}^{-3} \text{ d}^{-1}$ ) and SE during the two studied cruises, Threshold-2006 and 2007.

n.d. not determined

Cruise	Station	Longitude (E)	Latitude (N)	Date	Depth (m)	GPP	SE	CR	SE	NCP	SE	
Threshold-2006	2	8.0950	38.3087	6/4/06	5	n.d.	n.d.	n.d.	n.d.	-18.55	0.26	
	2	8.0950	38.3087	6/4/06	19	n.d.	n.d.	n.d.	n.d.	11.06	0.09	
	2	8.0950	38.3087	6/4/06	63	n.d.	n.d.	n.d.	n.d.	-2.23	0.08	
	8	20.7867	36.6865	6/8/06	5					2.20	0.33	
	8	20.7867	36.6865	6/8/06	24	3.63	0.17	6.06	0.12	-2.42	0.18	
	8	20.7867	36.6865	6/8/06	91	1.05	0.71	0.90	0.62	0.15	0.41	
	9	22.3462	36.2493	6/11/06	5	3.16	0.15	3.22	0.08	-0.06	0.14	
	9	22.3462	36.2493	6/11/06	30	5.63	0.57	8.06	0.56	-2.43	0.11	
	9	22.3462	36.2493	6/11/06	82	7.59	0.66	8.94	0.66	-1.35	0.03	
	22	25.9245	37.0900	6/22/06	5	2.86	0.15	2.78	0.12	0.08	0.09	
	22	25.9245	37.0900	6/22/06	15	15.13	0.08	3.30	0.11	11.83	0.11	
	26	19.6943	35.7050	6/25/06	5	2.43	0.15	2.54	0.15	-0.11	0.06	
	26	19.6943	35.7050	6/25/06	18	3.63	0.27	6.46	0.23	-2.83	0.16	
	26	19.6943	35.7050	6/25/06	92	3.58	0.19	6.15	0.09	-2.57	0.18	
	32	10.6443	37.8846	6/30/06	5	2.28	0.06	2.41	0.06	-0.13	0.02	
	32	10.6443	37.8846	6/30/06	9	2.10	0.04	3.69	0.08	-1.59	0.07	
	32	10.6443	37.8846	6/30/06	68	8.97	0.16	13.12	0.19	-4.15	0.16	
	Threshold-2007	1B	3.5387	39.3392	5/6/07	5	1.11	0.59	3.13	1.22	-2.02	1.26
		1B	3.5387	39.3392	5/6/07	20	5.31	1.98	12.98	0.95	-7.67	1.76
		1B	3.5387	39.3392	5/6/07	30	7.96	2.13	16.85	1.46	-8.89	1.60
1B		10.8553	38.2322	5/11/07	5	0.61	1.01	5.11	2.02	-4.50	1.69	
1B		10.8553	38.2322	5/11/07	15					1.39	1.53	
1B		10.8553	38.2322	5/11/07	25	3.21	1.19	2.99	1.35	0.22	1.25	
3		15.5253	36.3603	5/12/07	5	0.93	0.19	2.57	1.17	-1.64	1.18	
3		15.5253	36.3603	5/12/07	85	0.37	0.28	0.96	0.31	-0.59	0.28	
4B		17.9757	35.5862	5/13/07	4	0.85	0.80	1.14	0.78	-0.29	0.33	
4B		17.9757	35.5862	5/13/07	20	0.58	1.14	0.38	1.14	0.20	0.24	
4B		17.9757	35.5862	5/13/07	70	2.65	1.16	3.97	0.52	-1.32	1.08	
5		21.0670	34.4652	5/14/07	5	1.86	0.46	2.80	0.42	-0.94	0.37	
5		21.0670	34.4652	5/14/07	90	0.07	0.31	2.82	0.23	-2.75	0.33	
6		22.3383	34.0013	5/15/07	5	1.84	0.33	2.27	0.33	-0.43	0.19	
6		22.3383	34.0013	5/15/07	35	1.26	1.11	2.47	1.11	-1.21	0.36	
6		22.3383	34.0013	5/15/07	80	0.24	1.27	2.50	1.27	-2.26	0.79	
8		27.4547	32.7683	5/16/07	5	0.54	0.16	0.72	0.16	-0.18	0.20	
8		27.4547	32.7683	5/16/07	110	0.16	0.39	0.74	0.39	-0.58	0.17	
10		29.3362	31.4962	5/17/07	5	n.d.	n.d.	n.d.	n.d.	5.97	1.27	
10		29.3362	31.4962	5/17/07	25	n.d.	n.d.	n.d.	n.d.	8.13	0.53	
10		29.3362	31.4962	5/17/07	60	n.d.	n.d.	n.d.	n.d.	5.14	2.18	
13		28.6765	35.1763	5/22/07	5	0.28	0.20	1.06	0.20	-0.78	0.39	
13		28.6765	35.1763	5/22/07	50	2.93	0.37	1.46	0.37	1.47	0.35	
15		26.2210	36.1525	5/25/07	5	1.75	0.36	2.88	0.36	-1.13	0.55	
15		26.2210	36.1525	5/25/07	20	1.92	0.39	4.74	0.39	-2.82	0.42	
15		26.2210	36.1525	5/25/07	40	0.44	0.82	2.95	0.82	-2.51	0.80	
17		22.6475	36.1253	5/26/07	5	0.73	0.52	1.85	1.03	-1.12	1.11	
17		22.6475	36.1253	5/26/07	95	0.79	0.36	2.37	0.46	-1.58	0.29	
19		18.6275	36.7097	5/27/07	5	1.56	1.43	0.70	1.41	0.86	0.28	
19		18.6275	36.7097	5/27/07	20	2.73	0.53	0.05	0.56	2.69	0.57	
19		18.6275	36.7097	5/27/07	50	1.51	0.45	0.22	0.45	1.29	0.27	
21		13.9397	36.9083	5/31/07	5	0.58	0.36	4.51	0.41	-3.93	0.28	
21	13.9397	36.9083	5/31/07	20	1.52	0.42	4.86	0.42	-3.34	0.41		
21	13.9397	36.9083	5/31/07	50	1.80	0.75	8.23	0.49	-6.44	0.63		
22	10.2410	38.6755	6/1/07	5	0.58	0.50	0.56	0.47	0.02	0.46		
22	10.2410	38.6755	6/1/07	70	1.56		1.84	0.35	-0.28	0.44		