



Supplement of

High variability of particulate organic carbon export along the North Atlantic GEOTRACES section GA01 as deduced from ^{234}Th fluxes

Nolwenn Lemaitre et al.

Correspondence to: Nolwenn Lemaitre (nolwenn.lemaitre@erdw.ethz.ch)

The copyright of individual parts of the supplement might differ from the CC BY 4.0 License.

Table S1: ^{238}U and total ^{234}Th activities in dpm L $^{-1}$ and resulting $^{234}\text{Th}/^{238}\text{U}$ ratios. ^{238}U activity is derived from salinity (see text).

Station	Depth	Temperature	Salinity	^{238}U			^{234}Th		$^{234}\text{Th}/^{238}\text{U}$	
				#	m	°C	psu	dpm.L $^{-1}$	dpm.L $^{-1}$	
#1 40.3°N / -10.0 °E 20/05/2014	19	15.89	35.27	2.46	±	0.05	1.83	±	0.06	0.74
	39	14.93	35.55	2.48	±	0.05	1.69	±	0.05	0.68
	60	13.81	35.68	2.49	±	0.05	2.11	±	0.07	0.85
	79	13.44	35.71	2.49	±	0.05	2.39	±	0.07	0.96
	98	13.21	35.74	2.49	±	0.05	2.55	±	0.08	1.02
	119	13.02	35.73	2.49	±	0.05	2.50	±	0.08	1.00
	137	12.88	35.73	2.49	±	0.05	2.34	±	0.07	0.94
	158	12.73	35.71	2.49	±	0.05	2.44	±	0.08	0.98
	199	12.55	35.71	2.49	±	0.05	2.54	±	0.08	1.02
	246	12.29	35.69	2.49	±	0.05	2.60	±	0.08	1.05
	298	12.08	35.68	2.49	±	0.05	2.67	±	0.08	1.07
	396	11.69	35.65	2.49	±	0.05	2.59	±	0.08	1.04
	496	11.43	35.67	2.49	±	0.05	2.43	±	0.07	0.98
	589	11.41	35.77	2.50	±	0.05	2.61	±	0.08	1.05
#13 41.4°N / -13.9 °E 25/05/2014	695	11.60	35.94	2.51	±	0.05	2.58	±	0.08	1.03
	791	11.72	36.07	2.52	±	0.05	2.90	±	0.09	1.15
	989	11.34	36.15	2.53	±	0.05	2.68	±	0.08	1.06
	20	15.49	35.85	2.50	±	0.05	1.75	±	0.05	0.70
	40	14.86	35.81	2.50	±	0.05	1.83	±	0.05	0.73
	60	13.30	35.76	2.50	±	0.05	2.23	±	0.07	0.90
	78	13.14	35.76	2.50	±	0.05	2.31	±	0.06	0.93
	99	12.99	35.75	2.49	±	0.05	2.26	±	0.07	0.91
	119	12.93	35.75	2.49	±	0.05	2.63	±	0.08	1.05
	139	12.88	35.75	2.49	±	0.05	2.82	±	0.07	1.13
	159	12.83	35.74	2.49	±	0.05	2.64	±	0.07	1.06
	197	12.64	35.71	2.49	±	0.05	2.52	±	0.07	1.01
	248	12.38	35.68	2.49	±	0.05	2.65	±	0.07	1.06
	298	12.20	35.66	2.49	±	0.05	2.50	±	0.07	1.00
	398	11.82	35.62	2.48	±	0.05	2.52	±	0.07	1.01
	496	11.59	35.62	2.48	±	0.05	2.66	±	0.08	1.07
	594	11.23	35.61	2.48	±	0.05	2.61	±	0.07	1.05
	693	10.66	35.57	2.48	±	0.05	2.55	±	0.08	1.03
	792	10.55	35.68	2.49	±	0.05	2.35	±	0.06	0.95
	990	9.33	35.65	2.49	±	0.05	2.63	±	0.08	1.06
	1485	6.73	35.45	2.47	±	0.05	2.48	±	0.07	1.00

Station #	Depth m	Temperature °C	Salinity psu	^{238}U		^{234}Th		$^{234}\text{Th}/^{238}\text{U}$
				dpm.L ⁻¹	dpm.L ⁻¹	dpm.L ⁻¹	dpm.L ⁻¹	
#21 46.5°N / -19.7°E 31/05/2014	10	14.44	35.68	2.49	± 0.05	1.41	± 0.05	0.57
	20	13.65	35.66	2.49	± 0.05	1.69	± 0.05	0.68
	39	12.79	35.64	2.49	± 0.05	1.79	± 0.05	0.72
	59	12.71	35.65	2.49	± 0.05	1.80	± 0.05	0.72
	76	12.63	35.67	2.49	± 0.05	2.07	± 0.06	0.83
	100	12.45	35.69	2.49	± 0.05	2.36	± 0.07	0.95
	119	12.36	35.68	2.49	± 0.05	2.62	± 0.07	1.05
	158	12.23	35.66	2.49	± 0.05	2.53	± 0.07	1.02
	198	12.08	35.64	2.49	± 0.05	2.70	± 0.07	1.09
	296	11.80	35.60	2.48	± 0.05	2.83	± 0.07	1.14
	396	11.38	35.55	2.48	± 0.05	2.61	± 0.07	1.05
	495	11.01	35.50	2.48	± 0.05	2.65	± 0.08	1.07
	594	10.74	35.47	2.47	± 0.05	2.52	± 0.07	1.02
	693	9.78	35.32	2.46	± 0.05	2.56	± 0.07	1.04
#26 50.3°N / -22.6°E 04/06/2014	792	8.77	35.29	2.46	± 0.05	2.69	± 0.08	1.09
	989	7.47	35.32	2.46	± 0.05	2.58	± 0.07	1.05
	1189	6.17	35.21	2.45	± 0.05	2.36	± 0.07	0.96
	20	11.69	35.34	2.46	± 0.05	1.90	± 0.06	0.77
	49	9.77	35.19	2.45	± 0.05	1.90	± 0.06	0.77
	74	9.65	35.19	2.45	± 0.05	1.96	± 0.06	0.80
	99	9.40	35.16	2.45	± 0.05	2.07	± 0.07	0.85
	199	8.88	35.17	2.45	± 0.05	2.46	± 0.08	1.00
	297	8.17	35.07	2.44	± 0.05	2.36	± 0.07	0.97
	397	7.18	34.95	2.43	± 0.05	2.47	± 0.08	1.01
	593	5.97	35.00	2.44	± 0.05	2.59	± 0.08	1.07
	792	5.23	35.03	2.44	± 0.05	2.60	± 0.08	1.07
#32 55.5°N / -26.7°E 08/06/2014	11	10.51	35.13	2.45	± 0.05	1.63	± 0.08	0.67
	20	10.48	35.13	2.45	± 0.05	1.58	± 0.06	0.65
	40	8.89	35.07	2.44	± 0.05	1.88	± 0.06	0.77
	60	8.60	35.08	2.44	± 0.05	1.87	± 0.05	0.77
	99	8.67	35.13	2.45	± 0.05	1.64	± 0.05	0.67
	119	8.08	35.04	2.44	± 0.05	2.32	± 0.06	0.95
	139	7.88	35.03	2.44	± 0.05	2.59	± 0.08	1.06
	160	8.23	35.12	2.45	± 0.05	2.48	± 0.07	1.01
	199	7.99	35.09	2.44	± 0.05	2.42	± 0.07	0.99
	298	7.05	34.98	2.43	± 0.05	2.48	± 0.07	1.02
	376	5.99	34.89	2.43	± 0.05	2.52	± 0.07	1.04
	446	6.36	35.04	2.44	± 0.05	2.47	± 0.07	1.01
	494	5.70	34.98	2.43	± 0.05	2.50	± 0.07	1.03
	593	5.15	34.98	2.43	± 0.05	2.52	± 0.08	1.04
	693	4.78	34.96	2.43	± 0.05	2.45	± 0.07	1.01
	792	4.48	34.94	2.43	± 0.05	2.29	± 0.06	0.94

Station	Depth	Temperature	Salinity	^{238}U		^{234}Th		$^{234}\text{Th}/^{238}\text{U}$	
				#	m	°C	psu	dpm.L ⁻¹	dpm.L ⁻¹
#38 58.8°N / -31.3°E 11/06/2014	10	9.30	35.06	2.44	± 0.05	1.23	± 0.04	0.50	
	19	9.18	35.06	2.44	± 0.05	1.48	± 0.05	0.61	
	39	8.22	35.08	2.44	± 0.05	2.12	± 0.07	0.87	
	60	8.00	35.11	2.44	± 0.05	2.38	± 0.07	0.97	
	78	7.73	35.11	2.44	± 0.05	2.45	± 0.07	1.00	
	99	7.73	35.13	2.45	± 0.05	2.61	± 0.08	1.07	
	118	7.68	35.14	2.45	± 0.05	2.61	± 0.08	1.07	
	138	7.67	35.14	2.45	± 0.05	2.41	± 0.07	0.99	
	158	7.62	35.14	2.45	± 0.05	2.43	± 0.07	0.99	
	178	7.59	35.14	2.45	± 0.05	2.51	± 0.07	1.02	
	198	7.60	35.15	2.45	± 0.05	2.46	± 0.07	1.01	
	298	7.41	35.14	2.45	± 0.05	2.40	± 0.08	0.98	
	396	7.21	35.13	2.45	± 0.05	2.50	± 0.09	1.02	
	494	6.86	35.11	2.44	± 0.05	2.45	± 0.09	1.00	
#44 59.6°N / -38.9°E 14/06/2014	593	6.32	35.09	2.44	± 0.05	2.48	± 0.08	1.01	
	693	5.68	35.05	2.44	± 0.05	2.54	± 0.09	1.04	
	791	5.00	35.01	2.44	± 0.05	2.51	± 0.09	1.03	
	9	6.83	34.85	2.42	± 0.05	1.91	± 0.06	0.79	
	20	6.80	34.85	2.42	± 0.05	2.18	± 0.06	0.90	
	40	5.07	34.89	2.43	± 0.05	2.42	± 0.07	1.00	
	59	4.49	34.87	2.43	± 0.05	2.46	± 0.07	1.01	
	79	4.33	34.90	2.43	± 0.05	2.31	± 0.06	0.95	
	99	4.28	34.91	2.43	± 0.05	2.40	± 0.06	0.99	
	118	4.12	34.89	2.43	± 0.05	2.44	± 0.07	1.00	
	138	4.03	34.89	2.43	± 0.05	2.23	± 0.05	0.92	
	158	4.04	34.89	2.43	± 0.05	2.42	± 0.07	1.00	
	198	4.00	34.89	2.43	± 0.05	2.35	± 0.06	0.97	
	297	3.92	34.89	2.43	± 0.05	2.56	± 0.06	1.05	
	396	3.88	34.89	2.43	± 0.05	2.56	± 0.07	1.05	
	495	3.79	34.88	2.43	± 0.05	2.38	± 0.06	0.98	
	594	3.73	34.88	2.43	± 0.05	2.35	± 0.05	0.97	
	692	3.63	34.87	2.43	± 0.05	2.62	± 0.06	1.08	
	792	3.61	34.87	2.43	± 0.05	2.23	± 0.06	0.92	
	1087	3.70	34.89	2.43	± 0.05	2.43	± 0.07	1.00	

Station	Depth	Temperature	Salinity	^{238}U			^{234}Th			$^{234}\text{Th}/^{238}\text{U}$
				#	m	°C	psu	dpm.L ⁻¹	dpm.L ⁻¹	
#51 59.8°N / -42.0°E 18/06/2014	11	6.76	34.87	2.43	±	0.05	1.92	±	0.06	0.79
	19	6.65	34.88	2.43	±	0.05	1.89	±	0.05	0.78
	40	6.18	34.95	2.43	±	0.05	2.18	±	0.07	0.90
	60	5.96	34.97	2.43	±	0.05	2.07	±	0.06	0.85
	79	5.58	34.95	2.43	±	0.05	2.20	±	0.06	0.91
	100	5.51	34.95	2.43	±	0.05	2.44	±	0.07	1.00
	119	5.27	34.93	2.43	±	0.05	2.58	±	0.07	1.06
	139	5.13	34.92	2.43	±	0.05	2.42	±	0.07	1.00
	159	5.16	34.94	2.43	±	0.05	2.31	±	0.06	0.95
	178	4.93	34.92	2.43	±	0.05	2.44	±	0.07	1.01
	199	4.99	34.94	2.43	±	0.05	2.53	±	0.07	1.04
	298	4.97	34.96	2.43	±	0.05	2.51	±	0.07	1.03
	396	4.66	34.95	2.43	±	0.05	2.41	±	0.07	0.99
	495	4.51	34.94	2.43	±	0.05	2.26	±	0.06	0.93
#53 59.9°N / -43.1°E 16/06/2014	593	4.17	34.92	2.43	±	0.05	2.30	±	0.06	0.94
	692	4.05	34.91	2.43	±	0.05	2.49	±	0.07	1.02
	791	4.01	34.92	2.43	±	0.05	2.46	±	0.07	1.01
	10	-0.73	31.91	2.19	±	0.05	1.75	±	0.06	0.80
	20	-1.21	32.14	2.21	±	0.05	2.08	±	0.10	0.94
	40	-1.24	32.80	2.26	±	0.05	2.02	±	0.06	0.89
	59	-1.47	33.05	2.28	±	0.05	2.20	±	0.07	0.96
	79	-1.31	33.16	2.29	±	0.05	2.21	±	0.07	0.96
	99	-0.79	33.36	2.31	±	0.05	2.08	±	0.07	0.90
	119	0.84	33.56	2.32	±	0.05	2.03	±	0.06	0.87
#64 59.1°N / -46.1°E 20/06/2014	138	-0.08	33.59	2.33	±	0.05	1.91	±	0.06	0.82
	9	6.55	34.80	2.42	±	0.05	1.89	±	0.10	0.78
	20	6.04	34.85	2.42	±	0.05	2.00	±	0.07	0.83
	40	5.93	34.87	2.43	±	0.05	1.88	±	0.07	0.78
	79	5.37	34.95	2.43	±	0.05	2.46	±	0.09	1.01
	99	5.35	34.96	2.43	±	0.05	2.57	±	0.09	1.06
	139	5.17	34.96	2.43	±	0.05	2.43	±	0.09	1.00
	159	4.92	34.94	2.43	±	0.05	2.43	±	0.09	1.00
	197	4.78	34.93	2.43	±	0.05	2.31	±	0.08	0.95
	297	4.51	34.93	2.43	±	0.05	2.33	±	0.09	0.96
	396	4.35	34.93	2.43	±	0.05	2.45	±	0.09	1.01
	494	4.10	34.91	2.43	±	0.05	2.54	±	0.09	1.04
	594	3.97	34.90	2.43	±	0.05	2.52	±	0.09	1.04
	692	3.88	34.89	2.43	±	0.05	2.42	±	0.09	1.00
	792	3.71	34.88	2.43	±	0.05	2.46	±	0.09	1.01
	890	3.64	34.87	2.43	±	0.05	2.46	±	0.09	1.02

Station	Depth	Temperature	Salinity	^{238}U			^{234}Th		$^{234}\text{Th}/^{238}\text{U}$	
#	m	°C	psu	dpm.L ⁻¹			dpm.L ⁻¹			
#69 55.8°N / -48.1°E 23/06/2014	11	6.23	34.61	2.41	±	0.05	1.58	±	0.05	0.66
	20	6.15	34.61	2.41	±	0.05	1.84	±	0.05	0.77
	59	3.73	34.77	2.42	±	0.05	2.58	±	0.09	1.07
	80	3.92	34.83	2.42	±	0.05	2.52	±	0.08	1.04
	99	3.83	34.82	2.42	±	0.05	2.62	±	0.08	1.08
	119	3.95	34.85	2.42	±	0.05	2.55	±	0.08	1.05
	139	3.91	34.86	2.42	±	0.05	2.45	±	0.08	1.01
	159	3.83	34.86	2.42	±	0.05	2.41	±	0.07	0.99
	199	3.58	34.84	2.42	±	0.05	2.61	±	0.08	1.08
	298	3.54	34.85	2.42	±	0.05	2.56	±	0.08	1.05
	496	3.51	34.85	2.42	±	0.05	2.33	±	0.07	0.96
	595	3.48	34.85	2.42	±	0.05	2.50	±	0.08	1.03
	693	3.47	34.85	2.42	±	0.05	2.37	±	0.07	0.98
	792	3.48	34.85	2.42	±	0.05	2.53	±	0.08	1.04
	890	3.48	34.85	2.42	±	0.05	2.32	±	0.08	0.96
	990	3.46	34.85	2.42	±	0.05	2.36	±	0.07	0.98
#77 53.0°N / -51.1°E 26/06/2014	10	6.92	34.49	2.40	±	0.05	1.80	±	0.07	0.75
	20	6.27	34.56	2.40	±	0.05	1.76	±	0.07	0.73
	39	5.11	34.64	2.41	±	0.05	2.12	±	0.08	0.88
	59	4.09	34.71	2.41	±	0.05	2.39	±	0.10	0.99
	79	3.60	34.74	2.42	±	0.05	2.27	±	0.07	0.94
	100	3.49	34.76	2.42	±	0.05	2.64	±	0.08	1.09
	119	3.44	34.77	2.42	±	0.05	2.52	±	0.08	1.04
	139	3.41	34.79	2.42	±	0.05	2.57	±	0.08	1.06
	159	3.43	34.81	2.42	±	0.05	2.64	±	0.08	1.09
	199	3.46	34.83	2.42	±	0.05	2.36	±	0.08	0.97
	298	3.53	34.85	2.42	±	0.05	2.57	±	0.09	1.06
	397	3.57	34.86	2.42	±	0.05	2.67	±	0.09	1.10
	495	3.52	34.86	2.42	±	0.05	2.60	±	0.09	1.07
	595	3.56	34.87	2.43	±	0.05	2.49	±	0.08	1.03
	693	3.49	34.86	2.43	±	0.05	2.69	±	0.08	1.11

Table S2: Particulate ^{234}Th activities and POC concentrations in the small (SSF; 1-53 μm) and large size fraction (LSF; >53 μm).

Station	Depth	1-53 μm (SSF)				>53 μm (LSF)			
		#	m	^{234}Th dpm L $^{-1}$	POC $\mu\text{mol L}^{-1}$	^{234}Th dpm L $^{-1}$	POC $\mu\text{mol L}^{-1}$		
#1 40.3°N -10.0 °E	30	0.163	\pm 0.005	2.639	\pm 0.099	0.021	\pm 0.001	0.651	\pm 0.009
	80	0.086	\pm 0.003	0.208	\pm 0.017	0.022	\pm 0.001	0.357	\pm 0.005
	120	0.188	\pm 0.006	0.567	\pm 0.035	0.021	\pm 0.001	0.105	\pm 0.005
	250	0.171	\pm 0.004	0.428	\pm 0.019	0.038	\pm 0.001	0.068	\pm 0.006
	550	0.123	\pm 0.004	0.217	\pm 0.016	0.014	\pm 0.000	0.023	\pm 0.002
	800	0.068	\pm 0.003	0.035	\pm 0.032	0.011	\pm 0.001	0.024	\pm 0.005
#13 41.4°N -13.9 °E	30	0.456	\pm 0.004	2.160	\pm 0.035	0.028	\pm 0.001	0.196	\pm 0.005
	80	0.529	\pm 0.004	1.170	\pm 0.027	0.030	\pm 0.001	0.080	\pm 0.004
	120	0.431	\pm 0.004		\pm	0.032	\pm 0.001	0.039	\pm 0.005
	250	0.210	\pm 0.002	0.366	\pm 0.021	0.020	\pm 0.001	0.027	\pm 0.003
	450	0.133	\pm 0.001	0.266	\pm 0.016	0.009	\pm 0.000	0.018	\pm 0.002
#21 46.5°N -19.7°E	15	0.280	\pm 0.009	6.053	\pm 0.068	0.161	\pm 0.003	4.747	\pm 0.020
	60	0.775	\pm 0.017	4.064	\pm 0.105	0.243	\pm 0.005	1.201	\pm 0.031
	100	0.225	\pm 0.005	0.545	\pm 0.023	0.052	\pm 0.001	0.133	\pm 0.007
	200	0.122	\pm 0.003	0.360	\pm 0.021	0.038	\pm 0.001	0.046	\pm 0.002
	450	0.114	\pm 0.003	0.234	\pm 0.016	0.022	\pm 0.000	0.023	\pm 0.002
	800	0.108	\pm 0.002	0.158	\pm 0.013	0.014	\pm 0.000	0.017	\pm 0.001
#26 50.3°N -22.6°E	30	0.279	\pm 0.008	4.792	\pm 0.059	0.206	\pm 0.004	2.572	\pm 0.017
	83	0.225	\pm 0.005	0.848	\pm 0.022	0.201	\pm 0.002	0.877	\pm 0.007
	153	0.131	\pm 0.003	0.400	\pm 0.021	0.030	\pm 0.001	0.123	\pm 0.003
	400	0.111	\pm 0.005	0.240	\pm 0.049	0.012	\pm 0.001	0.035	\pm 0.007
#32 55.5°N -26.7°E	30	0.109	\pm 0.003	5.830	\pm 0.097	0.045	\pm 0.002	0.292	\pm 0.014
	60	0.359	\pm 0.007	1.565	\pm 0.027	0.027	\pm 0.001	0.124	\pm 0.004
	100	0.224	\pm 0.005	0.887	\pm 0.024	0.080	\pm 0.002	0.338	\pm 0.007
	200	0.121	\pm 0.004	0.467	\pm 0.022	0.010	\pm 0.000	0.046	\pm 0.003
	450	0.078	\pm 0.002	0.240	\pm 0.017	0.012	\pm 0.000	0.037	\pm 0.002
	800	0.084	\pm 0.002	0.203	\pm 0.015	0.010	\pm 0.000	0.066	\pm 0.002
#38 58.8°N -31.3°E	20	0.239	\pm 0.006	2.231	\pm 0.041	0.028	\pm 0.001	0.156	\pm 0.004
	60	0.290	\pm 0.006	1.273	\pm 0.028	0.037	\pm 0.001	0.128	\pm 0.004
	109	0.143	\pm 0.003	0.621	\pm 0.018	0.043	\pm 0.001	0.156	\pm 0.005
	396	0.133	\pm 0.004	0.292	\pm 0.036	0.009	\pm 0.000	0.030	\pm 0.005
#44 59.6°N -38.9°E	20	1.188	\pm 0.020	16.736	\pm 0.102	0.480	\pm 0.007	3.965	\pm 0.020
	40	0.474	\pm 0.010	3.550	\pm 0.056	0.041	\pm 0.001	0.133	\pm 0.013
	80	1.060	\pm 0.028	6.736	\pm 0.213	0.098	\pm 0.004	0.306	\pm 0.046
	150	0.116	\pm 0.004	0.392	\pm 0.041	0.005	\pm 0.000	0.026	\pm 0.009
	300	0.092	\pm 0.003	0.334	\pm 0.022	0.004	\pm 0.000	0.022	\pm 0.005
	500	0.067	\pm 0.002	0.187	\pm 0.016	0.005	\pm 0.000	0.016	\pm 0.004
#51 59.8°N -42.0°E	8	0.183	\pm 0.007	4.109	\pm 0.064	0.230	\pm 0.005	2.664	\pm 0.017
	20	0.958	\pm 0.025	8.974	\pm 0.111				
	60	0.366	\pm 0.009	2.154	\pm 0.036	0.148	\pm 0.003	0.554	\pm 0.010
	70	0.451	\pm 0.009	2.375	\pm 0.034				
	100	0.179	\pm 0.006	0.832	\pm 0.032	0.052	\pm 0.002	0.153	\pm 0.007
	150	0.193	\pm 0.006	0.747	\pm 0.039				
	250	0.088	\pm 0.003	0.328	\pm 0.021	0.017	\pm 0.001	0.076	\pm 0.005

Station	Depth	1-53 µm (SSF)					>53 µm (LSF)				
		234Th		POC			234Th		POC		
		#	m	dpm L ⁻¹		µmol L ⁻¹		dpm L ⁻¹		µmol L ⁻¹	
#64	30	0.024	± 0.001	0.418	± 0.009	0.026	± 0.001	0.373	± 0.002		
	60	0.174	± 0.007	1.726	± 0.054	0.015	± 0.001	0.154	± 0.012		
59.1°N	100	0.162	± 0.004	1.968	± 0.028	0.030	± 0.001	0.267	± 0.006		
-46.1°E	150	0.118	± 0.005	0.189	± 0.046	0.035	± 0.002	0.208	± 0.007		
	400	0.113	± 0.003	0.309	± 0.019	0.010	± 0.000	0.054	± 0.004		
	30	0.206	± 0.007	4.130	± 0.052	0.070	± 0.002	1.077	± 0.013		
#69	60	0.159	± 0.005	1.958	± 0.040	0.015	± 0.001	0.172	± 0.009		
55.8°N	100	0.124	± 0.004	1.655	± 0.028	0.030	± 0.001	0.299	± 0.007		
-48.1°E	150	0.097	± 0.004	0.895	± 0.039	0.010	± 0.001	0.083	± 0.009		
	410	0.069	± 0.002	0.313	± 0.022	0.006	± 0.000	0.075	± 0.005		
	10	0.313	± 0.011	11.182	± 0.098	0.206	± 0.006	3.039	± 0.021		
#77	50	0.447	± 0.012	5.488	± 0.067	0.057	± 0.002	0.425	± 0.016		
53.0°N	80	0.150	± 0.004	2.347	± 0.028	0.039	± 0.001	0.339	± 0.007		
-51.1°E	200	0.100	± 0.004	0.533	± 0.040	0.009	± 0.000	0.081	± 0.008		
	460	0.069	± 0.003	0.167	± 0.017	0.011	± 0.000	0.060	± 0.004		

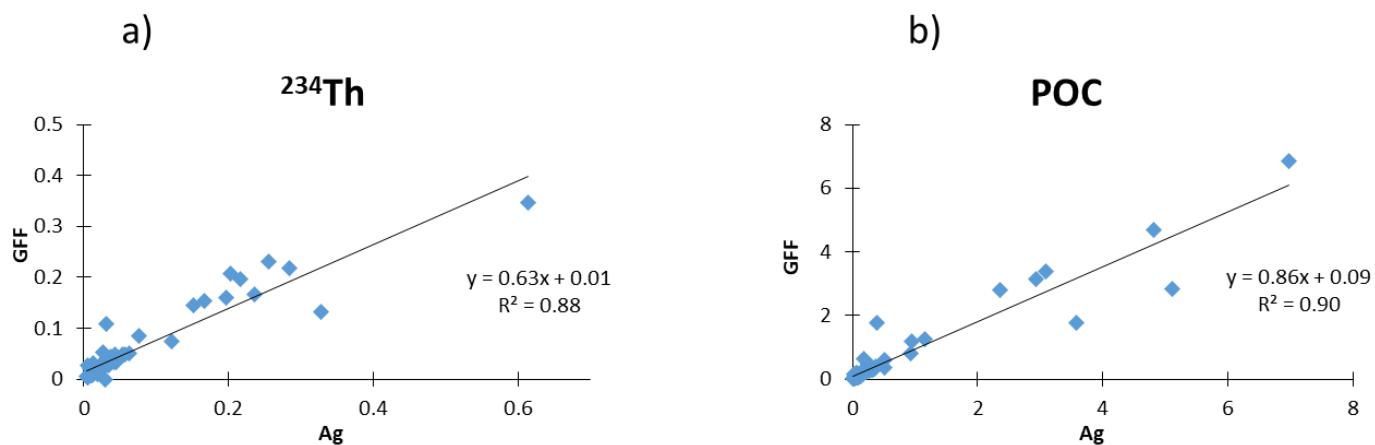


Figure S1: Comparison between a) ^{234}Th activities and b) POC concentrations measured on GF/F and silver (Ag) filters.

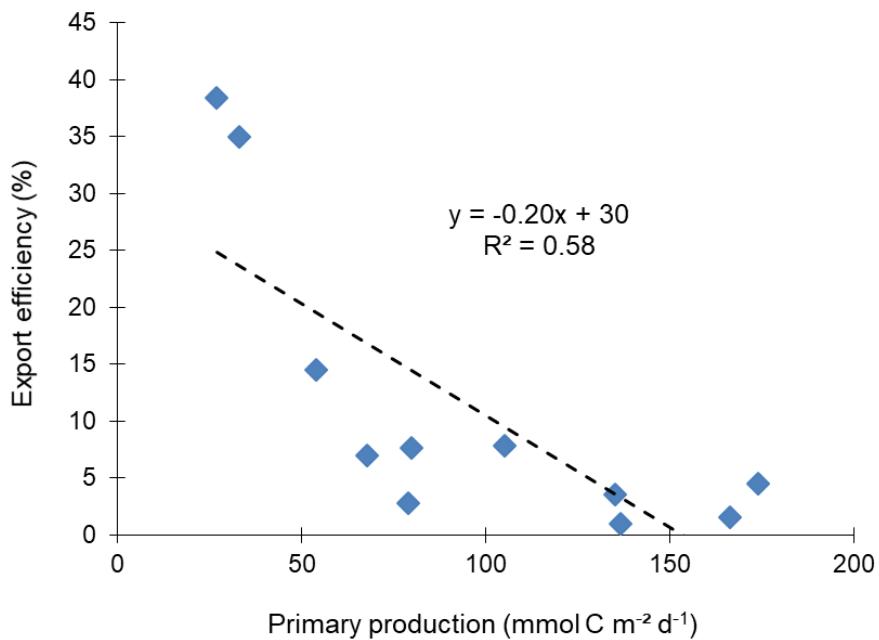


Figure S2: Export efficiency (in %) as a function of primary production (mmol C m⁻² d⁻¹).