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Supplement of

Seasonal evolution of net and regenerated silica production around a natural Fe-fertilized area in the Southern Ocean estimated with Si isotopic approaches

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Supplement

Station Date (2011)	PAR %	Depth m	BSi Concentration µmol l^{-1}	BSi Production µmol^{-1} d^{-1}	BSi Dissolution µmol^{-1} d^{-1}
R-2					
26 Oct	75	6	0.32 ± *0.02*	0.04 ± *0.00*	0.04 ± *0.00*
	45	16	0.32 ± *0.02*	0.03 ± *0.00*	*na*
	25	28	0.35 ± *0.02*	0.04 ± *0.00*	0.04 ± *0.00*
	16	37	0.33 ± *0.02*	0.03 ± *0.00*	*na*
	4	64	0.39 ± *0.02*	0.03 ± *0.00*	0.07 ± *0.01*
	1	92	0.41 ± *0.02*	0.04 ± *0.00*	0.04 ± *0.00*
	0.3	116	0.39 ± *0.02*	0.02 ± *0.00*	0.06 ± *0.01*
F-L					
7 Nov	75	2	3.20 ± *0.16*	1.22 ± *0.12*	0.14 ± *0.01*
	25	9	3.50 ± *0.18*	1.08 ± *0.11*	*na*
	16	11	3.48 ± *0.17*	0.99 ± *0.10*	0.14 ± *0.01*
	4	20	3.45 ± *0.17*	0.88 ± *0.09*	*na*
	1	29	3.22 ± *0.16*	0.59 ± *0.06*	0.11 ± *0.01*
	0.3	36	2.90 ± *0.15*	0.07 ± *0.01*	0.11 ± *0.01*
	0.01	57	3.04 ± *0.15*	0.04 ± *0.00*	0.10 ± *0.01*
E-4W					
12 Nov	75	2	4.86 ± *0.24*	1.03 ± *0.10*	0.12 ± *0.01*
	25	9	4.79 ± *0.24*	1.19 ± *0.12*	*na*
	16	12	4.50 ± *0.23*	1.02 ± *0.10*	0.14 ± *0.01*
	4	21	4.38 ± *0.22*	0.97 ± *0.10*	*na*
	1	31	4.54 ± *0.23*	0.99 ± *0.10*	0.12 ± *0.01*
	0.3	39	3.73 ± *0.19*	0.45 ± *0.04*	0.13 ± *0.01*
	0.01	61	3.65 ± *0.18*	0.06 ± *0.01*	0.15 ± *0.01*
A3-2					
17 Nov	75	2	4.83 ± *0.24*	1.28 ± *0.13*	0.12 ± *0.01*
	25	12	4.77 ± *0.24*	1.18 ± *0.12*	*na*
	16	15	4.43 ± *0.22*	1.21 ± *0.12*	0.14 ± *0.01*
	4	27	4.40 ± *0.22*	1.32 ± *0.13*	*na*
	1	38	4.53 ± *0.23*	1.28 ± *0.13*	0.09 ± *0.01*
	0.3	48	4.11 ± *0.21*	0.17 ± *0.02*	0.21 ± *0.02*
	0.01	77	4.17 ± *0.21*	0.04 ± *0.00*	0.16 ± *0.02*

Table A: Concentrations (BSi, µmol l^{-1}), production (ρSi, µmol l^{-1} d^{-1}) and dissolution (ρDiss, µmol l^{-1} d^{-1}) of biogenic silica over depth in the four contrasted KEOPS-2 stations.

Station Date (2011)	PAR %	Depth m	BSi Concentration $\mu mol\ l^{-1}$	BSi Production $\mu mol^{-1}\ d^{-1}$	BSi Dissolution $\mu mol^{-1}\ d^{-1}$
E-1					
30 Oct	75	4	1.36 ± 0.07	0.25 ± 0.03	0.09 ± 0.01
	25	11	1.34 ± 0.07	0.28 ± 0.03	*na*
	16	19	1.43 ± 0.07	0.28 ± 0.03	0.07 ± 0.01
	4	45	1.55 ± 0.08	0.26 ± 0.03	*na*
	1	64	1.75 ± 0.09	0.24 ± 0.03	0.17 ± 0.02
	0.3	81	1.17 ± 0.06	0.02 ± 0.00	0.19 ± 0.02
	0.01	129	1.69 ± 0.08	0.01 ± 0.00	*na*
E-3					
4 Nov	75	4	1.19 ± 0.06	0.18 ± 0.02	0.16 ± 0.02
	25	21	1.20 ± 0.06	0.20 ± 0.02	*na*
	16	27	1.23 ± 0.06	0.17 ± 0.02	0.11 ± 0.01
	4	48	1.17 ± 0.06	0.12 ± 0.01	*na*
	1	68	1.46 ± 0.07	0.12 ± 0.01	0.20 ± 0.02
	0.3	86	1.17 ± 0.06	0.01 ± 0.00	0.19 ± 0.02
	0.01	137	1.16 ± 0.06	0.00 ± 0.00	0.21 ± 0.02
E-4E					
14 Nov	75	2	3.07 ± 0.15	0.62 ± 0.06	*na*
	25	10	2.93 ± 0.15	0.57 ± 0.06	*na*
	16	13	3.10 ± 0.16	0.63 ± 0.06	*na*
	4	24	3.19 ± 0.16	0.64 ± 0.06	*na*
	1	34	2.91 ± 0.15	0.61 ± 0.06	*na*
	0.3	42	2.91 ± 0.15	0.26 ± 0.03	*na*
	0.01	67	1.77 ± 0.09	0.01 ± 0.00	*na*
E-5					
19 Nov	75	3	2.87 ± 0.14	0.57 ± 0.06	0.12 ± 0.01
	25	16	2.80 ± 0.14	0.52 ± 0.05	*na*
	16	22	2.90 ± 0.15	0.63 ± 0.06	0.15 ± 0.01
	4	38	3.16 ± 0.16	0.49 ± 0.05	*na*
	1	54	2.90 ± 0.15	0.29 ± 0.03	0.11 ± 0.01
	0.3	68	2.87 ± 0.14	0.03 ± 0.00	0.14 ± 0.01
	0.01	108	1.11 ± 0.06	0.00 ± 0.00	0.14 ± 0.01

Table B: Concentrations (BSi, $\mu mol\ l^{-1}$), production (ρSi, $\mu mol\ l^{-1}\ d^{-1}$) and dissolution ($\rho Diss$, $\mu mol\ l^{-1}\ d^{-1}$) of biogenic silica over depth in the KEOPS-2 lagrangian survey stations.