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SUPPORTING INFORMAITON

Anthropogenic ^{236}U in Danish Seawater: Global Fallout vs. Reprocessing Discharge

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This Supporting Information in total of 4 pages contents one table and two figures.

Table S-1. Overall results of ^{236}U and $^{236}U/^{238}U$ for Danish seawater in 2013 and 2014

Station No.	Region	Location	N, °	E, °	Depth, m	Salinity, ‰		^{238}U, µg/L*		^{236}U, atom/L × 10^7		$^{236}U/^{238}U$ atomic ratio × 10^{-9}		^{137}Cs, Bq/m^3	
						2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
1	Zealand	Kullen	56.20	12.37	2	12.79	-	1.33	-	4.52 ± 0.77	-	13.46 ± 2.30	-	24.10 ± 2.46	.
2	surface	Hesselø	56.17	11.78	2	15.92	16.10	1.89	1.56	7.63 ± 0.91	5.30 ± 0.49	15.91 ± 1.90	13.43 ± 1.23	20.54 ± 2.23	21.61 ± 0.61
3		Kattegat, SW	56.12	11.17	2	15.80	-	1.63	-	4.00 ± 0.54	-	9.68 ± 1.32	-	23.10 ± 2.37	.
4		Asnæs Rev	55.65	10.77	2	14.61	14.95	1.53	1.56	7.63 ± 0.69	-	19.70 ± 1.78	-	23.60 ± 2.46	22.79 ± 0.91
5		Halskov Rev	55.38	11.05	2	13.09	-	1.43	-	5.52 ± 0.56	-	15.27 ± 1.56	-	22.74 ± 2.31	.
6		Langeland Bælt	54.87	10.83	2	13.55	11.18	1.48	1.24	4.45 ± 0.43	6.12 ± 0.58	11.88 ± 1.14	19.49 ± 1.84	22.50 ± 2.29	24.57 ± 0.69
7		Femern Bælt	54.65	11.05	2	12.70	11.23	1.52	1.27	7.29 ± 0.65	5.91 ± 0.56	19.00 ± 1.70	18.40 ± 1.76	22.24 ± 2.34	26.53 ± 0.88
8		Gedser Odde	54.47	11.98	2	9.03	7.78	1.02	0.86	8.16 ± 0.74	6.81 ± 0.77	31.61± 2.87	31.28 ± 3.53	29.70 ± 0.29	30.67 ± 0.37
9		Møn	54.95	12.68	2	8.61	7.61	0.94	0.75	5.73 ± 0.59	4.66 ± 0.47	23.98 ± 2.47	24.55 ± 2.48	30.55 ± 3.21	27.59 ± 0.50
10		Sundet, S	55.42	12.60	2	8.31	7.69	0.92	0.79	5.42 ± 0.70	5.34 ± 0.50	23.30 ± 3.02	26.73 ± 2.48	28.60 ± 2.89	29.00 ± 0.73
11		Sundet, N	55.80	12.73	2	9.69	-	1.02	-	3.56 ± 0.35	-	13.78 ± 1.37	-	25.66 ± 2.59	-
12		Kattegat-413	56.66	12.00	2	16.63	16.81	1.84	1.74	4.34 ± 0.70	5.37 ± 0.49	9.34 ± 1.50	12.18 ± 1.11	19.11 ± 1.98	19.39 ± 0.35
Average ± sd										**5.69 ± 1.61**	**5.64 ± 0.70**	**17.24 ± 6.59**	**20.87 ± 7.01**	**24.22 ± 3.37**	**25.27 ± 4.03**
1	Zealand	Kullen	56.20	12.37	23	33.34	-	3.94	-	8.04 ± 0.73	-	8.07 ± 0.73	-	3.73 ± 0.50	-
2	bottom	Hesselø	56.17	11.78	24	33.98	34.72	3.62	3.45	6.50 ± 0.63	-	7.10 ± 0.69	-	3.47 ± 0.45	2.58 ± 0.34
3		Kattegat, SW	56.12	11.17	32	30.03	33.66	3.16	3.55	6.27 ± 0.57	-	7.83 ± 0.71	-	6.73 ± 0.86	4.17 ± 0.33
4		Asnæs Rev	55.65	10.77	33	28.27	33.26	3.01	3.47	7.96 ± 0.72	7.16 ± 0.67	10.45 ± 0.94	8.16 ± 0.76	8.58 ± 0.97	5.23 ± 0.48
5		Halskov Rev	55.38	11.05	26	30.09	-	3.32	3.36	4.50 ± 0.62	5.50 ± 0.58	5.37 ± 0.74	6.47 ± 0.68	7.61 ± 0.86	5.33 ± 0.63
6		Langeland Bælt	54.87	10.83	48	28.14	31.18	3.31	3.28	7.90 ± 1.09	5.83 ± 0.53	9.44 ± 1.31	7.03 ± 0.64	8.29 ± 0.98	6.07 ± 0.34
7		Femern Bælt	54.65	11.05	18	17.43	32.03	1.86	2.21	6.63 ± 0.62	6.30 ± 0.57	14.08 ± 1.31	11.27 ± 1.03	18.61 ± 1.99	17.98 ± 0.63
8		Gedser Odde	54.47	11.98	19	19.43	24.70	2.09	2.62	5.00 ± 0.58	7.01 ± 0.70	9.44 ± 1.09	10.57 ± 1.05	18.58 ± 2.06	15.61 ± 0.73
9		Møn	54.95	12.68	22	9.84	-	0.99	-	4.75 ± 0.60	-	18.88 ± 2.39	-	28.26 ± 3.02	-
10		Sundet, S	55.42	12.60	16	8.70	8.00	0.97	0.86	4.64 ± 0.45	5.42 ± 0.51	18.90 ± 1.82	24.88 ± 2.34	26.59 ± 2.70	26.17 ± 0.63
11		Sundet, N	55.80	12.73	18	31.56	34.24	3.37	3.6	7.03 ± 0.77	5.15 ± 0.49	8.25 ± 0.90	5.65 ± 0.54	5.01 ± 0.62	4.88 ± 0.33
12		Kattegat-413	56.66	12.00	22	33.64	34.21	3.57	3.5	7.74 ± 0.77	6.53 ± 0.67	8.57 ± 0.85	7.37 ± 0.75	4.08 ± 0.55	2.59 ± 0.24
Average ± sd										**6.41 ± 1.38**	**6.11 ± 0.75**	**10.53 ± 4.43**	**10.18 ± 6.25**	**11.63 ± 8.98**	**9. ± 0.70**
13	Jutland	Øster Hurup	56.81	10.28	2	25.95	-	-	2.33	-	3.22 ± 0.29	-	5.47 ± 0.50	-	-
14	surface	Sæby	57.35	10.52	2	28.42	-	-	2.65	-	6.10 ± 0.56	-	9.10 ± 0.83	-	-
15		Højen Skagen	57.73	10.52	2	29.70	-	-	2.8	-	4.91 ± 0.47	-	6.92 ± 0.66	-	-
16		Hirtshals	57.59	9.99	2	30.48	-	-	2.85	-	4.20 ± 0.33	-	5.83 ± 0.53	-	-
17		Hanstholm	57.12	8.63	2	32.12	-	-	2.92	-	6.90 ± 0.64	-	9.34 ± 0.86	-	-
18		Thyborøn	56.71	8.22	2	32.50	-	-	2.96	-	12.16 ± 1.16	-	16.23 ± 1.55	-	-
19		Hvide Sande	56.00	8.12	2	32.03	-	-	2.25	-	8.70 ± 0.84	-	15.27 ± 1.47	-	-
20	Roskilde	Frederiksværk Syd	55.96	12.02	2	-	-	2.08	-	6.63 ± 0.61	-	12.57 ± 1.17	-	-	-
21	fjord	Frederiksværk Nord	55.96	11.99	2	19.73	-	2.03	-	6.09 ± 0.58	-	11.84 ± 1.12	-	-	-
22	surface	Langelse Hage	55.95	11.93	2	22.04	-	2.00	-	7.51 ± 0.80	-	14.83 ± 1.59	-	-	-
23		Lynæs vest	55.94	11.85	2	-	-	2.21	-	7.48 ± 0.68	-	13.37 ± 1.22	-	-	-
24		Lynæs øst	55.94	11.85	2	-	-	1.92	-	5.49 ± 0.71	-	11.32 ± 1.46	-	-	-
25		Gundelev Hage	55.70	12.02	2	15.69	-	1.85	-	4.76 ± 0.58	-	10.15 ± 1.25	-	-	-
26		Ægholm Falk nord	55.72	12.02	2	-	-	1.85	-	4.43 ± 0.46	-	9.45 ± 0.99	-	-	-
27		Eskilsø vest	55.74	12.07	2	-	-	1.92	-	5.49 ± 0.71	-	11.32 ± 1.46	-	-	-
28		Risø DR3 Udløb	55.70	12.09	2	-	-	1.85	-	6.23 ± 0.59	-	13.28 ± 1.25	-	-	-

*Uncertainties for all the values in these two columns are less than 10%.

Figure S-1. Distribution of ^{238}U concentration in seawater along the Danish coasts in 2013 and 2014

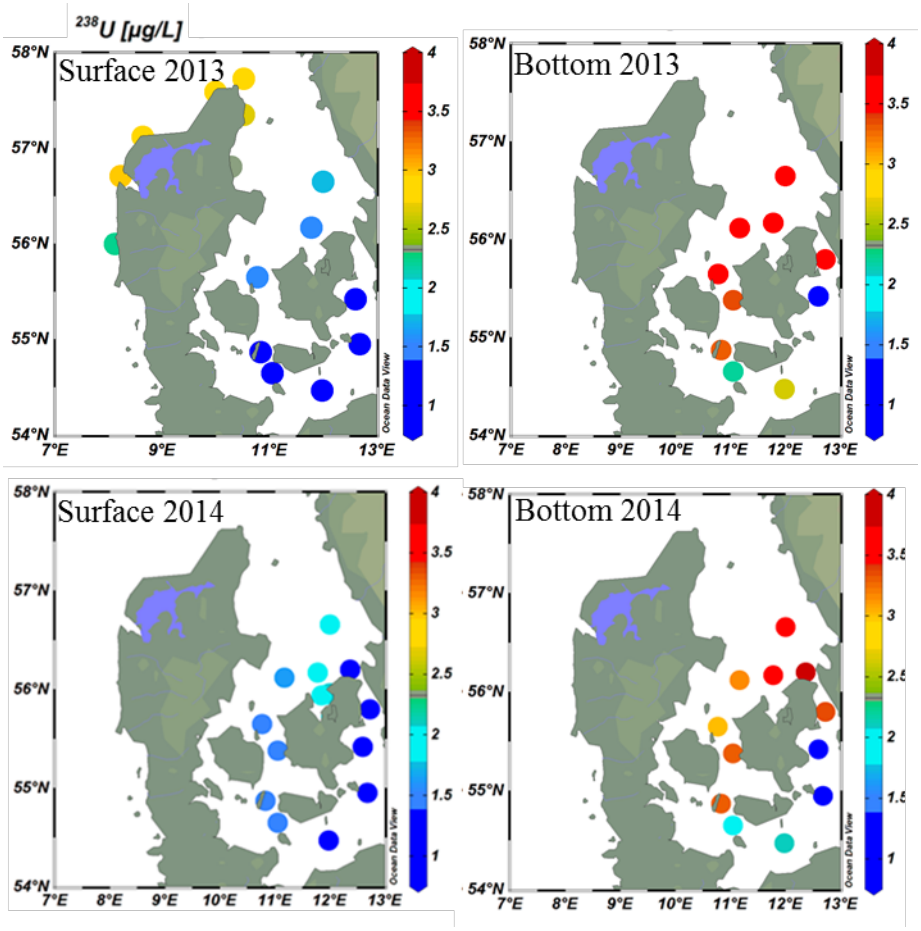

Figure S-2. Distribution of ^{137}Cs concentration in seawater along the Danish coasts in 2013 and 2014