

# Station Data

Station	G403	Cast #	089	Local Date	6.25.2016	Time	9:30
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		Measuring Light	12:57	3074	21506	0.857
				Int. 5	12:58	127	147	0.136
				Freq. 12	13:01	142	146	0.027
				System Parameters	13:02	218	664	0.672
				Gain 12	13:03	444	624	0.288
2	16	5 m.		PM-Gain 30	13:04	653	760	0.141
				F-Offs. 554	13:05	706	779	0.094
				Measuring Light	13:06	707	721	0.019
				Int. same	13:07	488	696	0.299
				Freq. same	13:08	715	729	0.019
3	13	10 m.		System Parameters	13:09	632	740	0.146
				Gain	13:10	627	836	0.250
				PM-Gain	13:11	738	793	0.069
				F-Offs.	13:12	570	761	0.251
				Measuring Light	13:12	583	736	0.208
4	12	15 m.		Int. same	13:13	331	322	-
				Freq. same	13:14	221	309	0.285
				System Parameters	13:25	380	438	0.132
				Gain	13:26	288	289	0.003
				PM-Gain	13:27	277	324	0.145
5	10	20 m.		F-Offs.	13:28	0	176	-
				Measuring Light	13:29	320	304	-
				Int. same	13:30	243	262	0.073
				Freq. same	13:30	352	301	-
				System Parameters	13:31	259	252	-

why so high?

**Station Data**

Station	G403	Cast #	089	Local Date	6.25.2016	Time	9:30
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	8	25 m.		Measuring Light	13:34	379	346	-
				Int. Freq. <i>same</i>	13:34	336	328	-
				System Parameters	13:35	365	354	-
				Gain	13:36	323	307	-
				PM-Gain	13:37	355	332	-
7	6	30 m.		Measuring Light	13:38	345	332	-
				Int. Freq. <i>same</i>	13:39	395	431	0.084
				System Parameters	13:40	381	366	-
				Gain	13:40	358	357	-
				PM-Gain	13:41	368	390	0.056
8	4	40 m.		Measuring Light	13:42	349	363	0.039
				Int. Freq. <i>same</i>	13:43	332	312	-
				System Parameters	13:44	242	279	0.133
				Gain	13:45	330	323	-
				PM-Gain	13:46	367	364	-
9	3	60 m.		Measuring Light	13:46	393	408	0.037
				Int. Freq. <i>same</i>	13:47	353	331	-
				System Parameters	13:48	289	278	-
				Gain	13:49	163	208	0.216
				PM-Gain	13:50	314	329	0.040
10	1	80 m.		Measuring Light	13:53	374	346	-
				Int. Freq. <i>same</i>	13:54	338	314	-
				System Parameters	13:55	295	303	0.026
				Gain	13:56	56	50	-
				PM-Gain	13:58	386	419	0.079

# Station Data

Station	G409	Cast #	097	Local Date	6-26-2016	Time	10:15
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Lat. N	68° 6.5909	Temp.	-1.40°C	Depth	1438
Long. W	59° 57.6278	Salinity	31.86	Fluor.	0.60

## Samples in dark

Time 11:37

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
3	14	10m.		<b>Measuring Light</b>	Ampl. 1	12:26	0.095
				Int. 2	Int. 4	12:28	0.152
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	12:32	0.080
				Gain 12	Int. 5	12:34	0.039
				PM-Gain 30			
				<b>F-Offs.</b> 286	Ampl. 2	12:37	0.389
					Int. 4	12:39	0.303
				<b>NPQ Curve</b>	Ampl. 6	12:41	0.226
					Int. 5	12:46	0.406
5	10	20m. DCM		<b>Measuring Light</b>	Ampl. 1	12:52	0.026
				Int. Same	Int. 4	12:54	0.083
				Freq. Same			
				<b>System Parameters</b>	Ampl. 1	12:56	0.053
				Gain	Int. 5	12:58	0.060
				PM-Gain			
				<b>F-Offs.</b>	Ampl. 2	13:00	0.407
					Int. 4	13:02	0.403
				<b>NPQ Curve</b>	Ampl. 6	13:05	0.040
					Int. 5	13:10	0.473
7	7	40m.		<b>Measuring Light</b>	Ampl. 1	13:16	0.258
				Int. 3	Int. 4	13:19	0.150
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	13:22	0.238
				Gain 12	Int. 5	13:24	0.241
				PM-Gain 30		13:27	0.167
				<b>F-Offs.</b> 463	Ampl. 2	13:29	0.464
					Int. 4	13:31	0.481
				<b>NPQ Curve</b>	Ampl. 6	13:34	0.322
					Int. 5	13:39	0.511

Blanked on FSW from St. at 100 m.



# Station Data

Station	G 409	Cast #	097	Local Date	6.26.2016	Time	10:15
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	SPZ		<b>Measuring Light</b>	13:50	508	528	0.038
				Int. 3	:51	458	583	0.214
				Freq. 12	:52	455	657	0.307
				<b>System Parameters</b>	:52	379	364	-
				Gain 12	:56	664	793	0.163
2	16	5m.		PM-Gain 30				
				<b>F-Offs.</b> 463	:56	638	925	0.310
				<b>Measuring Light</b>	:57	558	849	0.343
				Int.	:58	617	961	0.358
				Freq. same				
3	14	10 m.		<b>System Parameters</b>				
				Gain				
				PM-Gain				
				<b>F-Offs.</b> 286	14:00	373	635	0.413
				<b>Measuring Light</b>	:00	447	758	0.410
4	13	15m.		Int. 2	:01	424	704	0.398
				Freq. 12				
				<b>System Parameters</b>				
				Gain				
				PM-Gain				
5	10	20m.		<b>F-Offs.</b>	14:02	346	562	0.384
				<b>Measuring Light</b>	:03	378	595	0.365
				Int.	:04	414	686	0.397
				Freq. same				
				<b>System Parameters</b>				
				Gain				
				PM-Gain				
				<b>F-Offs.</b>	:04	369	563	0.345
				<b>Measuring Light</b>	:05	323	644	0.498
				Int.	:06	285	448	0.364
				Freq. same	:06	258	434	0.406
				<b>System Parameters</b>	:07	314	563	0.442
				Gain				
				PM-Gain				
				<b>F-Offs.</b>				



# Station Data

Station	G409	Cast #	097	Local Date	6-26-2016	Time	10:15
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	30m.		<b>Measuring Light</b>	14:10	423	785	0.461
				Int. 3	:11	400	804	0.502
				Freq. 12	:12	412	875	0.529
				<b>System Parameters</b>				
				Gain 12				
7	7	40m.		PM-Gain 30				
				<b>F-Offs.</b> 463				
				<b>Measuring Light</b>	:12	305	586	0.480
				Int.	:13	344	633	0.457
				Freq. same	:14	412	625	0.341
8	5	50m.		<b>System Parameters</b>	:14	346	627	0.448
				Gain	:15	355	678	0.476
				PM-Gain	:17	208	363	0.427
				<b>F-Offs.</b>	:18	212	436	0.514
				<b>Measuring Light</b>	:18	317	447	0.291
9	3	60m.		Int.	:19	313	480	0.348
				Freq. same	:20	187	299	0.375
				<b>System Parameters</b>	:23	264	450	0.413
				Gain	:23	210	316	0.335
				PM-Gain	:24	324	437	0.259
10	1	100m.		<b>F-Offs.</b> 663	:25	241	412	0.415
				<b>Measuring Light</b>	:26	242	531	0.544
				Int. 4	:29	94	85	-
				Freq. 12	:29	74	113	0.345
				<b>System Parameters</b>	:30	120	107	-
				Gain 12	:31	92	107	0.140
				PM-Gain 30	:32	48	49	-
				<b>F-Offs.</b> 850				



# Station Data

Station	G413	Cast #	107	Local Date	6-27-2016	Time	1:30 pm
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Lat. N		Temp.		Depth	
Long. W		Salinity		Fluor.	

## Samples in dark

Time 14:50

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
3	14	15 m.		<b>Measuring Light</b>	Ampl. 1	15:38	-
				Int. 3	Int. 4	15:40	0.053
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	15:42	0.014
				Gain 12	Int. 5	15:44	0.052
				PM-Gain 30	Ampl. 2	15:47	0.131
				<b>F-Offs.</b> 210	Int. 4	15:49	0.168
				NPQ Curve	Ampl. 6	15:51	0.040
					Int. 5	15:57	0.247
6	7	30 m. DCM		<b>Measuring Light</b>	Ampl. 1	16:03	0.202
				Int.	Int. 4	16:05	0.264
				Freq. same			
				<b>System Parameters</b>	Ampl. 1	16:08	0.175
				Gain	Int. 5	16:10	0.180
				PM-Gain	Ampl. 2	16:12	0.376
				<b>F-Offs.</b>	Int. 4	16:14	0.357
				NPQ Curve	Ampl. 6	16:17	0.382
					Int. 5	16:22	0.352
7	6	40 m.		<b>Measuring Light</b>	Ampl. 1	16:27	0.287
				Int. 4	Int. 4	16:35	-
				Freq. 12		16:37	0.0
				<b>System Parameters</b>	Ampl. 1	16:40	0.050
				Gain 12	Int. 5	16:42	-
				PM-Gain 30	Ampl. 2	16:44	0.132
				<b>F-Offs.</b> 178	Int. 4	16:46	0.082
				NPQ Curve	Ampl. 6	16:48	0.309
					Int. 5	16:53	0.415

didn't change settings from 30 m.



# Station Data

Station	G413	Cast #	107	Local Date	6-27-2016	Time	13:30
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		<b>Measuring Light</b>	16:59	456	496	0.081
				Int. 4	17:00	496	485	-
				Freq. 12				
				<b>System Parameters</b>	:01	552	545	-
				Gain 12	:02	372	412	0.097
				PM-Gain 30	:02	446	470	0.051
2	16	10m.		<b>F-Offs. 178</b>				
				<b>Measuring Light</b>	:04	441	585	0.161
				Int.	:05	378	636	0.406
				Freq. same	:06	475	560	0.152
				<b>System Parameters</b>	:06	444	719	0.382
				Gain	:07	683	802	0.148
3	14	15m. RLC		PM-Gain				
				<b>F-Offs.</b>				
				<b>Measuring Light</b>	:08	623	1090	0.428
				Int.	:10	857	1130	0.242
				Freq. same	:10	787	1078	0.270
				<b>System Parameters</b>	:11	820	1043	0.214
4	12	20m.		Gain	:12	811	1083	0.251
				PM-Gain				
				<b>F-Offs.</b>				
				<b>Measuring Light</b>	:13	774	1133	0.317
				Int.	:14	937	1299	0.279
				Freq. same	:16	921	1249	0.263
5	10	25m.		<b>System Parameters</b>				
				Gain				
				PM-Gain				
				<b>F-Offs.</b>				
				<b>Measuring Light</b>	:18	646	979	0.340
				Int. 3	:19	677	1080	0.373
				Freq. 12	:20	748	1012	0.261
				<b>System Parameters</b>	:21	640	907	0.294
				Gain 12				
				PM-Gain 30				
				<b>F-Offs. 210</b>				

# Station Data

Station	G413	Cast #	107	Local Date	6.27.2016	Time	13:30
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	7	30m. DOM RLC		Measuring Light	17:22	629	840	0.251
				Int.				
				Freq. same	:24	632	865	0.269
				System Parameters	:24	609	827	0.264
				Gain				
7	6	40m. RLC		PM-Gain				
				F-Offs.				
				Measuring Light	:25	426	525	0.189
				Int.				
				Freq. same	:26	368	478	0.230
8	4	50m.		System Parameters	:26	321	410	0.217
				Gain				
				PM-Gain				
				F-Offs.				
				Measuring Light	:27	300	334	0.102
9	2	60m.		Int.				
				Freq. same	:28	268	297	0.098
				System Parameters	:28	364	491	0.259
				Gain	:29	283	315	0.102
				PM-Gain	:30	308	301	-
10	1	90m.		F-Offs.				
				Measuring Light	:31	460	587	0.216
				Int. 4	:32	498	664	0.250
				Freq. 12	:33	521	536	0.028
				System Parameters	:34	493	621	0.293
				Gain 12	:35	524	609	0.140
				PM-Gain 30				
				F-Offs. 178				
				Measuring Light	:35	514	518	0.008
				Int.	:36	472	500	0.056
				Freq. same	:37	456	447	-
				System Parameters	:37	454	480	0.054
				Gain	:38	418	430	0.028
				PM-Gain				
				F-Offs.				

# Station Data

Station	G418	Cast #	110	Local Date	6-28-2016	Time	7:00
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Lat. N		Temp.		Depth	
Long. W		Salinity		Fluor.	

## Samples in dark

Time 8:02

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
3	13	20m.		<b>Measuring Light</b>	Ampl. 1	8:53	0.057
				Int. 4	Int. 4	8:55	0.279
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	8:57	0.103
				Gain 12	Int. 5	9:00	0.232
				PM-Gain 30			
				<b>F-Offs.</b> 433	Ampl. 2	9:03	0.299
					Int. 4	9:05	0.338
5	8	30m. DCM		<b>NPQ Curve</b>	Ampl. 6	9:08	0.533
					Int. 5	9:13	0.448
				<b>Measuring Light</b>	Ampl. 1	9:21	0.213
				Int. 3	Int. 4	9:23	0.168
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	9:25	0.104
				Gain 12	Int. 5	9:27	0.280
				PM-Gain 30			
6	7	40m.		<b>F-Offs.</b> 449	Ampl. 2	9:30	0.420
					Int. 4	9:33	0.382
				<b>NPQ Curve</b>	Ampl. 6	9:36	0.426
					Int. 5	9:42	0.522
				<b>Measuring Light</b>	Ampl. 1	9:49	0.248
				Int. same	Int. 4	9:51	0.174
				Freq. same			
				<b>System Parameters</b>	Ampl. 1	9:54	0.217
				Gain	Int. 5	10:00	0.189
				PM-Gain			
				<b>F-Offs.</b>	Ampl. 2	10:03	0.484
					Int. 4	10:05	0.337
				<b>NPQ Curve</b>	Ampl. 6	10:07	0.351
					Int. 5	10:13	0.323



# Station Data

Station	G418	Cast #	110	Local Date	6.28.2016	Time	7:00
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	17	Sfc		Measuring Light	10:25	353	417	0.153
				Int. 3	10:37	375	482	0.222
				Freq. 12				
				System Parameters	10:39	377	579	0.349
				Gain 12	10:40	372	465	0.200
2	15	10 m.		PM-Gain 30	10:41	409	483	0.153
				F-Offs. 449				
				Measuring Light	10:43	257	347	0.259
				Int.	10:43	418	693	0.397
				Freq. same				
3	13	20 m. RLC		System Parameters	10:44	404	686	0.411
				Gain	10:45	254	353	0.280
				PM-Gain	10:46	258	353	0.269
				F-Offs.				
				Measuring Light	10:47	313	467	0.330
4	11	25 m.		Int.	10:48	<del>683</del> <sup>414</sup>	683	0.274
				Freq. same				
				System Parameters	10:49	705	1169	0.397
				Gain	10:51	539	982	0.451
				PM-Gain	10:52	347	497	0.302
5	8	30 m. RLC		F-Offs.				
				Measuring Light	10:52	482	931	0.482
				Int.	10:53	358	620	0.423
				Freq.				
				System Parameters	10:54	434	615	0.294
				Gain	10:56	673	1345	0.492
				PM-Gain	10:57	555	1077	0.485
				F-Offs.				
				Measuring Light	10:58	476	812	0.414
				Int.	10:59	407	627	0.351
				Freq.				
				System Parameters	11:00			0.372
				Gain	11:02			0.313
				PM-Gain				
				F-Offs.	11:02	379	686	0.448

**Station Data**

Station	G418	Cast #	110	Local Date	6.28.2016	Time	7:00
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	7	40m. RLC		Measuring Light	11:03	284	402	0.294
				Int. Freq. Same	11:04	289	443	0.348
				System Parameters	11:04	306	437	0.300
				Gain	11:05	263	395	0.334
				PM-Gain F-Offs.	11:06	281	369	0.238
7	5	50 m.		Measuring Light	11:07	222	283	0.216
				Int. Freq. Same	11:07	201	233	0.137
				System Parameters	11:08	229	245	0.065
				Gain	11:09	179	186	0.038
				PM-Gain F-Offs.	11:09	198	184	-
8	3	60 m.		Measuring Light	11:11	426	446	0.045
				Int. 4	11:12	393	423	0.071
				Freq. 12	11:13	425	467	0.090
				System Parameters				
				Gain 12 PM-Gain 30 F-Offs. 433				
9	2	70 m.		Measuring Light	11:14	404	392	-
				Int. Freq. Same	11:14	403	390	-
				System Parameters	11:15	469	590	0.205
				Gain	11:16	367	386	0.049
				PM-Gain F-Offs.	11:17	431	415	-
10	1	100 m.		Measuring Light	11:17	323	322	-
				Int. Freq. Same	11:18	338	364	0.071
				System Parameters	11:19	342	353	0.031
				Gain	11:37	337	319	-
				PM-Gain F-Offs.	11:37	331	329	-

# Station Data

Station	G507	Cast #	123	Local Date	6.30.2016	Time	6:00
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Lat. N	70 13538	Temp.	-0.14 °C	Depth	296 m.
Long. W	69 6.6880	Salinity	32.01	Fluor.	2

## Samples in dark

Time 7:13

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
1	18	8fc		Measuring Light	Ampl. 1	8:21	0.223
				Int. 1	Int. 4	8:23	0.125
				Freq. 4			
				System Parameters	Ampl. 1	8:26	0.075
				Gain 8	Int. 5	8:29	0.092
				PM-Gain 30			
				F-Offs. 38	Ampl. 2	8:31	0.288
					Int. 4	8:34	0.399
3	13	10 m. DCM		NPQ Curve	Ampl. 6	8:37	-
					Int. 5	8:42	0.082
				Measuring Light	Ampl. 1	8:48	0.108
				Int. 1	Int. 4	8:51	0.177
				Freq. same			
				System Parameters	Ampl. 1	8:53	0.246
				Gain	Int. 5	8:56	-
				PM-Gain			
5	10	20 m.		F-Offs.	Ampl. 2	8:58	0.322
					Int. 4	9:01	0.149
				NPQ Curve	Ampl. 6	9:04	0.144
					Int. 5	9:08	0.048
				Measuring Light	Ampl. 1	9:20	0.231
				Int. 2	Int. 4	9:23	0.301
				Freq. 4			
				System Parameters	Ampl. 1	9:25	0.586
				Gain 8	Int. 5	9:27	0.402
				PM-Gain 30			
				F-Offs. 112	Ampl. 2	9:30	0.431
					Int. 4	9:33	0.439
				NPQ Curve	Ampl. 6	9:35	0.502
					Int. 5	9:40	0.371



# Station Data

Station	G507	Cast #	123	Local Date	6.30.2016	Time	6:00
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfc		<b>Measuring Light</b>	9:47	231	250	0.076
				Int. 1	9:47	306	280	-
				Freq. 4	9:49	324	298	-
				<b>System Parameters</b>	9:50	418	495	0.156
				Gain 8	9:51	371	345	-
2	16	5m.		PM-Gain 30				
				F-Offs. 30				
				<b>Measuring Light</b>	9:52	469	502	0.066
				Int. same	9:53	254	231	-
				Freq. same	9:54	260	276	0.058
3	13	10m.		<b>System Parameters</b>	9:55	343	379	0.095
				Gain	9:56	334	348	0.040
				PM-Gain	9:58	379	390	0.028
				F-Offs.	9:59	400	405	0.012
					10:00	309	301	-
4	12	15m.			10:01	395	420	0.060
					10:02	474	479	0.010
				<b>Measuring Light</b>	10:04	467	440	-
				Int. 1	10:09	609	643	0.053
				Freq. 4	10:10	943	1087	0.132
5	10	20m.		<b>System Parameters</b>	10:11	582	630	0.076
				Gain 12	10:13	735	755	0.026
				PM-Gain 30	10:17	388	596	0.349
				F-Offs. 51	10:18	427	730	0.415
					10:19	653	1063	0.386
		RLC			10:20	741	1452	0.490
					10:21	726	1442	0.497

**Station Data**

Station	G507	Cast #	123	Local Date	6-30-2016	Time	6:00
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	8	25m.		Measuring Light	10:25	366	622	0.412
				Int. Freq. <i>same</i>	10:26	305	548	0.443
				System Parameters	10:27	281	561	0.499
				Gain				
				PM-Gain				
7	6	30m.		F-Offs.				
				Measuring Light	10:31	353	612	0.423
				Int. Freq. <i>same</i>	10:32	369	661	0.442
				System Parameters	10:33	201	249	0.193
				Gain	10:34	185	354	0.477
8	4	40m.		PM-Gain	10:35	268	368	0.272
				F-Offs.				
				Measuring Light	10:37	355	496	0.284
				Int. Freq. <i>same</i>	10:38	359	873	0.589
				System Parameters	10:39	172	174	0.011
9	2	50m.		Gain	10:44	168	282	0.404
				PM-Gain	10:45	164	120	-
				F-Offs. <i>278</i>				
				Measuring Light	10:46	108	107	-
				Int. Freq. <i>same</i>	10:47	182	428	0.575
10	1	80m.		System Parameters	10:48	62	71	0.127
				Gain	10:48	109	192	0.432
				PM-Gain	10:49	164	214	0.234
				F-Offs.				
				Measuring Light	10:51	127	113	-
				Int. Freq. <i>same</i>	10:51	82	58	-
				System Parameters	10:52	86	102	0.157
				Gain	10:53	86	74	-
				PM-Gain	10:54	73	81	0.099
				F-Offs.				

Station Data								
Station	G512	Cast #	134		Local Date	7-1-2016	Time	7:00

Lat. N	70° 0.0652	Temp.	-1.02°C	Depth	533
Long. W	160° 21.5495	Salinity	31.36	Fluor.	0.34

Samples in dark	
Time	8:10

PAM Measurements - Rapid Light Curves							
Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
2	16	5 m.		<b>Measuring Light</b>	Ampl. 1	9:05	-
				Int. 2	Int. 4	9:08	0.164
				Freq. 4			
				<b>System Parameters</b>	Ampl. 1	9:11	0.067
				Gain 10	Int. 5	9:13	0.256
				PM-Gain 30			
				F-Offs. 326	Ampl. 2	9:16	0.070
					Int. 4	9:18	0.182
				NPQ Curve	Ampl. 6	9:21	0.106
					Int. 5	9:27	0.058
4	11	15 m.		<b>Measuring Light</b>	Ampl. 1	9:34	0.098
				Int. 1	Int. 4	9:36	-
				Freq. 4			
				<b>System Parameters</b>	Ampl. 1	9:39	0.028
				Gain 3	Int. 5	9:41	0.138
				PM-Gain 28			
				F-Offs. 12	Ampl. 2	9:44	0.338
					Int. 4	9:46	0.240
				NPQ Curve	Ampl. 6	9:48	0.309
					Int. 5	9:55	-
6	9	25 m.		<b>Measuring Light</b>	Ampl. 1	10:06	0.474
				Int. 2	Int. 4	10:09	0.096
				Freq. 4			
				<b>System Parameters</b>	Ampl. 1	10:11	0.525
				Gain 10	Int. 5	10:14	0.404
				PM-Gain 30			
				F-Offs. 326	Ampl. 2	10:20	0.545
					Int. 4	10:22	0.613
				NPQ Curve	Ampl. 6	10:24	0.394
					Int. 5	10:31	0.608

← new file



# Station Data

Station	G512	Cast #	134	Local Date	7-1-2016	Time	7:00
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		<b>Measuring Light</b>	10:45	218	199	-
				Int. 2	10:49	570	620	0.081
				Freq. 4	10:50	885	1243	0.288
				<b>System Parameters</b>	10:52	1115	1520	0.266
				Gain 10 PM-Gain 30 F-Offs. 326	10:53	781	837	0.067
2	16	5 m. RLC		<b>Measuring Light</b>	10:54	744	716	-
				Int. same	10:55	207	221	0.063
				Freq. same	10:56	200	169	0. -
				<b>System Parameters</b>	10:57	276	261	-
				Gain PM-Gain F-Offs.	10:57	929	1114	0.166
3	14	10 m.		<b>Measuring Light</b>	11:02	414	419	0.012
				Int. 1	11:03	458	432	-
				Freq. 4	11:04	305	325	0.062
				<b>System Parameters</b>	11:05	543	479	-
				Gain 6 PM-Gain 30 F-Offs. 34	11:06	395	399	0.010
4	11	15 m. DCM RLC		<b>Measuring Light</b>	11:10	547	507	-
				Int. 1	11:12	503	483	-
				Freq. 4	11:12	525	491	-
				<b>System Parameters</b>	11:13	563	547	-
				Gain 3 PM-Gain 30 F-Offs. 20				
5	10	20 m.		<b>Measuring Light</b>	11:25	432	783	0.448
				Int. 2	11:26	501	955	0.475
				Freq. 4	11:26	498	889	0.440
				<b>System Parameters</b>				
				Gain 3 PM-Gain 22 F-Offs. 13				

**Station Data**

Station	G512	Cast #	134	Local Date	7-1-2016	Time	7:00
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	25m.		<b>Measuring Light</b>	11:30	347	554	0.374
				Int. 2	11:31	232	331	0.299
				Freq. 4	11:32	173	306	0.435
				<b>System Parameters</b>	11:33	176	310	0.432
				Gain 4 PM-Gain 30 F-Offs. 93	11:33	279	443	0.370
7	7	30m.		<b>Measuring Light</b>	11:38	496	816	0.392
				Int. 2	11:39	299	419	0.286
				Freq. 12	11:40	323	536	0.397
				<b>System Parameters</b>	11:40	291	436	0.333
				Gain 12 PM-Gain 30 F-Offs. 281	11:41	384	613	0.374
8	5	40m.		<b>Measuring Light</b>	11:42	201	270	0.256
				Int. same	11:43	215	310	0.306
				Freq. same	11:44	245	418	0.294
				<b>System Parameters</b>				
				Gain PM-Gain F-Offs.				
9	3	50m.		<b>Measuring Light</b>	11:47	330	593	0.444
				Int. 3	11:48	131	173	0.243
				Freq. 12	11:49	89	79	-
				<b>System Parameters</b>	11:49	106	122	0.131
				Gain 12 PM-Gain 30 F-Offs. 491	11:50	281	357	0.213
10	1	100m.		<b>Measuring Light</b>	11:52	120	160	0.250
				Int. same	11:52	38	26	-
				Freq. same	11:53	49	55	0.109
				<b>System Parameters</b>	11:54	101	137	0.263
				Gain PM-Gain F-Offs.	11:54	62	47	-

# Station Data

Station	G519	Cast #	143	Local Date	7.2.2016	Time	11:00
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Lat. N		Temp.	-1.4	Depth	
Long. W		Salinity	31.89	Fluor.	0.47

## Samples in dark

Time 12:00

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
2	16	10m.		Measuring Light	Ampl. 1	13:11	0.141
				Int. 3	Int. 4	13:13	0.274
				Freq. 12			
				System Parameters	Ampl. 1	13:15	0.051
				Gain 12	Int. 5	13:20	0.102
				PM-Gain 30			
				F-Offs. ?	Ampl. 2	13:22	0.383
				~400	Int. 4	13:24	0.284
				NPQ Curve	Ampl. 6	13:27	0.524
					Int. 5	13:35	0.611
4	12	20m.		Measuring Light	Ampl. 1	13:43	0.027
				Int. 4	Int. 4	13:45	0.151
				Freq. 12			
				System Parameters	Ampl. 1	13:48	0.097
				Gain 12	Int. 5	13:51	0.061
				PM-Gain 30		13:55	0.066
				F-Offs. 623	Ampl. 2	13:58	0.398
				NPQ Curve	Int. 4	14:00	0.162
					Ampl. 6	14:03	0.457
					Int. 5	14:09	0.458
5	11	30m.		Measuring Light	Ampl. 1	14:17	0.207
				Int. same	Int. 4	14:19	0.217
				Freq. same			
				System Parameters	Ampl. 1	14:21	0.134
				Gain	Int. 5	14:23	0.165
				PM-Gain			
				F-Offs.	Ampl. 2	14:27	0.253
				NPQ Curve	Int. 4	14:29	0.311
					Ampl. 6	14:31	0.199
					Int. 5	14:36	0.0



# Station Data

Station		Cast #		Local Date		Time	
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		<b>Measuring Light</b>	14:53			0.896
				Int. 4	14:54			0.423
				Freq. 12	:55			0.153
				<b>System Parameters</b>	:56			0.188
				Gain 12 PM-Gain 30 F-Offs. 623 <i>Ampl. 6</i>	:57	733		—
2	16	10m.		<b>Measuring Light</b>	:58			0.149
				Int.	:59			0.487
				Freq. Same	:59			0.108
				<b>System Parameters</b>	:00			0.678
				Gain PM-Gain F-Offs.	:01			0.144
3	15	15m.		<b>Measuring Light</b>	:01			0.122
				Int.	:02			0.586
				Freq. Same	:03			0.555
				<b>System Parameters</b>	:04			0.318
				Gain PM-Gain F-Offs.	:05			0.061
4	12	20m.		<b>Measuring Light</b>	:09	0	226	—
				Int. 5	:13			0.650
				Freq. 12				
				<b>System Parameters</b>				
				Gain 12 PM-Gain 30 F-Offs. 571				
5	11	30m.		<b>Measuring Light</b>	:15			0.036
				Int. 4 <i>Same</i>	:15	310	376	0.176
				Freq. 12	:16			
				<b>System Parameters</b>				
				Gain 12 PM-Gain 30 F-Offs. 623				

← resist  
software

# Station Data

Station	G-519	Cast #		Local Date		Time	
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	40m.		<b>Measuring Light</b>	:23			0.081
				Int. 5	:24			0.320
				Freq. 12	:25			0.206
				<b>System Parameters</b>	:25			0.594
				Gain 12	:27			0.583
7	7	50m.		PM-Gain 30				
				F-Offs. 6.64				
				<b>Measuring Light</b>	:27	0	0	-
				Int. same	:28	21	52	0.596
				Freq. same	:28	90	136	0.338
8	5	60m.		<b>System Parameters</b>				
				Gain				
				PM-Gain				
				F-Offs.				
				<b>Measuring Light</b>	:29	0	82	-
9	3	70m.		Int. same	:30	15	82	0.817
				Freq. same	:30	29	89	0.674
				<b>System Parameters</b>	:31			
				Gain				
				PM-Gain				
10	1	100m.		F-Offs.				
				<b>Measuring Light</b>	:30	28	111	0.748
				Int. same	:32	0	80	-
				Freq. same	:33	0	109	-
				<b>System Parameters</b>				
				Gain				
				PM-Gain				
				F-Offs.				
				<b>Measuring Light</b>	:34	228	230	0.009
				Int. same	:35	206	198	-
				Freq. same	:35	4	86	-
				<b>System Parameters</b>				
				Gain				
				PM-Gain				
				F-Offs.				

Station Data								
Station	G519	Cast #	ice		Local Date	7.2.2016	Time	8:00

Lat. N		Temp.		Depth	
Long. W		Salinity		Fluor.	

Samples in dark	
Time	13:30

Ice Size	3 0-3 cm
Vol FSW Added	6 L total

Melt time start	11:26
Melt time end	13:35

Final Vol: 6.356 L

PAM Measurements - Rapid Light Curves							
Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
12	ice 0-3 cm st. G519		50	Measuring Light	Ampl. 1	15:42	0.0
				Int. 4	Int. 4	15:44	0.029
				Freq. 12			
				System Parameters	Ampl. 1	15:47	0.032
				Gain 12	Int. 5	15:50	-
				PM-Gain 30			
				F-Offs. 575	Ampl. 2	15:52	0.014
					Int. 4	15:54	0.075
				NPQ Curve	Ampl. 6	15:57	0.031
					Int. 5	16:02	0.027

PAM Measurements - Fv/Fm							
Tube	Ice Bottom	Sample #	Settings	Time	F	Fm'	Y(II)
	three 0-3 cm in 6 L FSW from previous nut. station		Measuring Light	15:50	437	489	0.106
			Int.				
			Freq.				
			System Parameters				
			Gain				
			PM-Gain				
			F-Offs.				
			see FLASH 60				



# Station Data

Station	G600	Cast #	147	Local Date	7.3.2016	Time	10:15
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Lat. N	70 30.4445	Temp.	-1.44°C	Depth	
Long. W	63 59.6094	Salinity	31.86	Fluor.	0.73

## Samples in dark

Time	11:25
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## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
4	12	15m.		<b>Measuring Light</b>	Ampl. 1	12:20	0.109
				Int. 2	Int. 4	12:23	0.099
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	12:25	0.134
				Gain 12	Int. 5	12:27	0.068
				PM-Gain 30			
				F-Offs. 268	Ampl. 2	12:29	0.422
					Int. 4	12:31	0.388
6	8	25m. DOM	FLASH	<b>Measuring Light</b>	Ampl. 1	12:46	0.336
				Int. 2	Int. 4	12:48	0.243
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	12:50	0.237
				Gain 12	Int. 5	12:52	0.241
				PM-Gain 30			
				F-Offs. 268	Ampl. 2	12:54	0.428
				same ↑ NPQ Curve	Int. 4	12:57	0.377
8	5	40m.		<b>Measuring Light</b>	Ampl. 1	13:11	0.039
				Int. 4	Int. 4	13:13	-
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	13:15	0.250
				Gain 12	Int. 5	13:17	0.146
				PM-Gain 30			
				F-Offs. 436	Ampl. 2	13:19	-
				NPQ Curve	Int. 4	13:21	0.129
					Ampl. 6	13:24	0.633
					Int. 5	13:30	0.151

# Station Data

Station		Cast #		Local Date		Time	
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfc		Measuring Light	14:02	482	578	0.166
				Int. 2	:03	511	553	0.076
				Freq. 12	:04	506	533	0.051
				System Parameters	:05	489	592	0.174
				Gain 12	:06	421	507	0.170
2	16	5 m.		PM-Gain 30				
				F-Offs. 268				
				Measuring Light	:06	407	441	0.171
				Int. same	:07	480	498	0.036
				Freq. same	:08	443	438	-
3	14	10 m.		System Parameters	:08	492	546	0.099
				Gain	:09	490	617	0.206
				PM-Gain				
				F-Offs.				
				Measuring Light	:10	217	521	0.583
4	12	15 m.		Int. same	:10	480	591	0.188
				Freq. same	:13	437	677	0.355
				System Parameters	:13	501	729	0.313
				Gain	:14	388	615	0.369
				PM-Gain				
5	11	20 m.		F-Offs.	:16	425	613	0.307
				Measuring Light	:17	444	670	0.337
				Int. same	:18	344	782	0.560
				Freq. same	:19	513	837	0.387
				System Parameters	:19	468	806	0.419
				Gain	:20	317	559	0.433
				PM-Gain	:21	333	586	0.432
				F-Offs.	:21	298	520	0.427

# Station Data

Station	G600	Cast #		Local Date		Time	
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	8	25m.		Measuring Light	14:22	312	506	0.383
				Int. Same	:23	333	582	0.428
				System Parameters	:24	293	503	0.417
				Gain	:24	305	514	0.407
				PM-Gain	:25	323	523	0.382
7	7	30m.		Measuring Light	:27	426	541	0.213
				Int. 4	:27	410	601	0.318
				Freq. 12	:28	438	501	0.126
				System Parameters	:29	708	825	0.142
				Gain 12	:29	448	643	0.303
8	5	40m.		PM-Gain 30				
				F-Offs. 436				
				Measuring Light	:30	196	496	0.605
				Int. Same	:31	371	484	0.233
				Freq. Same	:31	409	540	0.243
9	3	50m.		System Parameters	:32	377	408	0.076
				Gain	:33	392	497	0.211
				PM-Gain				
				F-Offs.				
				Measuring Light	:34	405	485	0.165
10	1	100m.		Int. Same	:35	381	459	0.170
				Freq. Same	:35	340	408	0.167
				System Parameters				
				Gain				
				PM-Gain				
				F-Offs.				
				Measuring Light	:37	285	264	-
				Int. Same	:37	304	272	-
				Freq. Same	:38	291	305	0.046
				System Parameters	:39	263	250	-
				Gain	:39	326	286	-
				PM-Gain				
				F-Offs.				



Station Data								
Station	G-600	Cast #	ice		Local Date	7-3-2016	Time	8:00

Lat. N		Temp.		Depth		Samples in dark	
Long. W		Salinity		Fluor.		Time	14:15

Ice Size	five 0-3 cm bottom
Vol FSW Added	6 L

Melt time start	10:50
Melt time end	13:25

Final volume 6.765 L

PAM Measurements - Rapid Light Curves							
Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
12	5 0-3 cm in 6L FSW			Measuring Light	Ampl. 1	15:26	0.100
				Int. 2	Int. 4	15:28	0.122
				Freq. 4			
				System Parameters	Ampl. 1	15:30	0.112
				Gain 4	Int. 5	15:34	0.139
				PM-Gain 30			
				F-Offs. 81	Ampl. 2	15:36	0.124
					Int. 4	15:38	0.086
				NPQ Curve	Ampl. 6	15:40	-
					Int. 5	15:45	0.027

PAM Measurements - Fv/Fm							
Tube	Ice Bottom	Sample #	Settings	Time	F	Fm'	Y(II)
			Measuring Light				
			Int.				
			Freq.				
			System Parameters				
			Gain				
			PM-Gain				
			F-Offs.				

# Station Data

Station	G605	Cast #	155	Local Date	7.7.2016	Time	8:20
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Lat. N	7027.9731	Temp.	-1.4 °C	Depth	2024 m.
Long. W	6220.7999	Salinity	31.94	Fluor.	0.48

## Samples in dark

Time	9:15
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## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
2	10 m.	16		Measuring Light	Ampl. 1	10:10	0.356
				Int. 3	Int. 4	10:12	0.195
				Freq. 12			
				System Parameters	Ampl. 1	10:16	0.314
				Gain 12	Int. 5	10:18	0.295
				PM-Gain 30			
				F-Offs. 367	Ampl. 2	10:20	0.398
					Int. 4	10:22	0.411
				NPQ Curve	Ampl. 6	10:25	0.527
					Int. 5	10:31	0.385
4	20 m. DCM	12		Measuring Light	Ampl. 1	10:38	0.395
				Int. same	Int. 4	10:40	0.218
				Freq. same			
				System Parameters	Ampl. 1	10:42	0.237
				Gain	Int. 5	10:45	0.242
				PM-Gain			
				F-Offs.	Ampl. 2	10:47	0.481
					Int. 4	10:49	0.536
				NPQ Curve	Ampl. 6	10:53	0.514
					Int. 5	10:58	0.490
6	30 m.	9		Measuring Light	Ampl. 1	11:06	0.217
				Int. same	Int. 4	11:10	0.272
				Freq. same			
				System Parameters	Ampl. 1	11:12	0.228
				Gain	Int. 5	11:14	0.233
				PM-Gain			
				F-Offs.	Ampl. 2	11:17	0.359
					Int. 4	11:19	0.417
				NPQ Curve	Ampl. 6	11:21	0.381
					Int. 5	11:28	0.456

# Station Data

Station	G605	Cast #	155	Local Date	7.4.2016	Time	8:20
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		<b>Measuring Light</b>	11:33	331	410	0.193
				Int. 3	11:36	365	477	0.235
				Freq. 12	11:36	364	424	0.142
				<b>System Parameters</b>	11:37	334	410	0.185
				Gain 12	11:37	385	478	0.195
2	16	10m.		PM-Gain 30				
				F-Offs. 367				
				<b>Measuring Light</b>	11:39	517	830	0.377
				Int. Same	11:39	377	653	0.423
				Freq. Same	11:40	389	715	0.456
3	15	15m.		<b>System Parameters</b>	11:41	459	846	0.457
				Gain	11:42	437	655	0.333
				PM-Gain	11:42	750	1332	0.437
				F-Offs.	11:43	1190	2634	0.548
				<b>Measuring Light</b>	11:45	1205	2301	0.476
4	12	20m.		Gain	11:47	1002	1780	0.437
				PM-Gain	11:48	1348	2539	0.469
				F-Offs.	12:42	970	1708	0.432
				<b>Measuring Light</b>	12:43	682	1291	0.472
				Int. Same	12:43	709	1510	0.530
5	11	25m.		Freq. Same	12:44	1304	2784	0.532
				<b>System Parameters</b>	12:46			0.453
				Gain	12:48	518		0.355
				PM-Gain	12:48	431	751	0.426
				F-Offs.	12:49	412	760	0.458
				Gain	12:49	436	764	0.429
				PM-Gain	12:50	418	751	0.443
				F-Offs.				



**Station Data**

Station	G605	Cast #	155	Local Date	7.4.2016	Time	8:20
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	30 m.		Measuring Light	12:51	321	588	0.454
				Int. Freq. Same	12:52	359	564	0.363
				System Parameters	12:53	321	542	0.408
				Gain	12:53	348	582	0.402
				PM-Gain F-Offs.	12:54	324	566	0.428
7	7	40 m.		Measuring Light	12:55	282	505	0.442
				Int. Freq. Same	12:56	263	445	0.409
				System Parameters	12:58	272	467	0.418
				Gain	12:58	293	577	0.492
				PM-Gain F-Offs.	12:59	301	506	0.405
8	5	50 m.		Measuring Light	13:04	201	263	0.236
				Int. Freq. Same	13:04	170	254	0.331
				System Parameters	13:06	215	248	0.133
				Gain	13:06	215	265	0.189
				PM-Gain F-Offs.	13:07	170	230	0.261
9	3	60 m.		Measuring Light	13:08	159	163	0.025
				Int. Freq. Same	13:09	202	215	0.060
				System Parameters	13:09	180	186	0.032
				Gain	13:10	175	188	0.069
				PM-Gain F-Offs.	13:11	181	201	0.100
10	1	100 m.		Measuring Light	13:12	155	182	0.148
				Int. Freq. Same	13:13	123	115	-
				System Parameters	13:13	134	162	0.173
				Gain	13:14	157	136	-
				PM-Gain F-Offs.	13:15	147	142	-

# Station Data

Station	G615	Cast #	159	Local Date	7-5-2016	Time	8:10
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Lat. N		Temp.		Depth	
Long. W		Salinity		Fluor.	

## Samples in dark

Time 9:05

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
2	16	20 m.		<b>Measuring Light</b>	Ampl. 1	9:50	0.158
				Int. 1	Int. 4	9:52	0.155
				Freq. 4			
				<b>System Parameters</b>	Ampl. 1	9:54	0.065
				Gain 6	Int. 5	9:57	0.190
				PM-Gain 30			
				F-Offs. 58	Ampl. 2	9:59	0.343
				NPQ Curve	Int. 4	10:01	0.339
					Ampl. 6	10:03	0.240
					Int. 5	10:06	0.089
4	11	30 m. DCM	FWASH	<b>Measuring Light</b>	Ampl. 1	10:16	0.412
				Int. same	Int. 4	10:18	0.468
				Freq. same			
				<b>System Parameters</b>	Ampl. 1	10:20	0.383
				Gain	Int. 5	10:23	0.423
				PM-Gain			
				F-Offs.	Ampl. 2	10:25	0.497
				NPQ Curve	Int. 4	10:28	0.451
					Ampl. 6	10:30	0.169
					Int. 5	10:35	0.200
6	7	40 m.		<b>Measuring Light</b>	Ampl. 1	10:40	0.066
				Int. 2	Int. 4	10:48	0.411
				Freq. 12		10:51	0.477
				<b>System Parameters</b>	Ampl. 1	10:53	0.381
				Gain 12	Int. 5	10:55	0.379
				PM-Gain 30			
				F-Offs. 350	Ampl. 2	10:57	0.615
				NPQ Curve	Int. 4	10:59	0.524
					Ampl. 6	11:02	0.595
					Int. 5	11:07	0.609

# Station Data

Station	6615	Cast #	159	Local Date	7.5.2016	Time	8:10
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		<b>Measuring Light</b>	11:25	162	251	0.355
				Int. 3	11:26	172	203	0.153
				Freq. 12	11:27	180		0.247
				<b>System Parameters</b>	11:28	241	322	0.252
				Gain 12	11:29	116	174	0.333
2	16	20m.		PM-Gain 30	11:36	656	623	-
				F-Offs. 449	11:37	565	589	0.041
				<b>Measuring Light</b>	11:38	708	660	0 -
				Int. 1	11:40	583	633	0.079
				Freq. 4	11:40	599	580	-
3	14	20m. 25m.		<b>System Parameters</b>	12:31	519	935	0.445
				Gain 11	12:32	534	976	0.453
				PM-Gain 30	12:33	552	934	0.409
				F-Offs. 73	12:34	570	1060	0.462
				<b>Measuring Light</b>	12:34	537	985	0.455
4	11	30m.		Int. 2	12:38	535	1167	0.542
				Freq. 4	12:39	553	1227	0.549
				<b>System Parameters</b>	12:40	495	1091	0.546
				Gain 3				
				PM-Gain 29				
5	9	35m.		F-Offs. 69	12:44	428	929	0.539
				<b>Measuring Light</b>	12:46	453	943	0.520
				Int. 2	12:47	408	1013	0.538
				Freq. 4				
				<b>System Parameters</b>				
				Gain 8				
				PM-Gain 30				
				F-Offs. 174				

not  
great  
curve  
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values  
from  
KLCs



# Station Data

Station	G615	Cast #	159	Local Date	7.5.2016	Time	8:10
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	7	40m.		<b>Measuring Light</b>	12:51	427	855	0.501
				Int. 2	12:53	418	866	0.517
				Freq. 4	12:53	371	894	0.585
				<b>System Parameters</b>	12:54	365	854	0.573
				Gain 12 PM-Gain 30 F-Offs. 242	12:55	345	875	0.549
7	5	50m.		<b>Measuring Light</b>	12:59	242	453	0.466
				Int. 2	13:00	232	447	0.481
				Freq. 12	13:01	242	455	0.468
				<b>System Parameters</b>	13:02	276	552	0.500
				Gain 12 PM-Gain 30 F-Offs. 265	13:02	248	450	0.449
8	3	70m.		<b>Measuring Light</b>	13:14	62	64	0.031
				Int. 4	13:15	72	72	0.0
				Freq. 12	13:16	77	91	0.154
				<b>System Parameters</b>	13:16	75	124	0.395
				Gain 12 PM-Gain 30 F-Offs. 644	13:17	55	84	0.345
9	1	100m.		<b>Measuring Light</b>	13:18	31	12	-
				Int. same	13:19	32	19	-
				Freq. same	13:20	63	46	-
				<b>System Parameters</b>	13:20	58	115	0.496
				Gain PM-Gain F-Offs.	13:21	60	38	-
no 10				<b>Measuring Light</b>				
				Int.				
				Freq.				
				<b>System Parameters</b>				
				Gain PM-Gain F-Offs.				

too low for good measure - news

# Station Data

Station	G 604.5	Cast #	167	Local Date	7.6.2016	Time	8:00
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Lat. N	70 29.7581	Temp.	-0.33	Depth	
Long. W	62 37.3111	Salinity	31.15	Fluor.	0.43

## Samples in dark

Time 9:16

## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
2	16	10 m.		Measuring Light	Ampl. 1	9:58	0.857
				Int. 4	Int. 4	10:00	0.080
				Freq. 12			
				System Parameters	Ampl. 1	10:03	0.120
				Gain 12	Int. 5	10:05	0.054
				PM-Gain 30			
				F-Offs. 339	Ampl. 2	10:07	0.241
				NPQ Curve	Int. 4	10:10	0.234
					Ampl. 6	10:12	0.394
					Int. 5	10:17	0.336
4	11	20 m. DCM		Measuring Light	Ampl. 1	10:28	0.243
				Int. 3	Int. 4	10:30	0.277
				Freq. 12			
				System Parameters	Ampl. 1	10:32	0.287
				Gain 12	Int. 5	10:35	0.263
				PM-Gain 30			
				F-Offs. 261	Ampl. 2	10:37	0.407
				NPQ Curve	Int. 4	10:39	0.452
					Ampl. 6	10:42	0.398
					Int. 5	10:47	0.409
6	9	30 m.		Measuring Light	Ampl. 1	10:54	0.281
				Int. 4	Int. 4	10:56	0.316
				Freq. 12			
				System Parameters	Ampl. 1	10:58	0.286
				Gain 12	Int. 5	11:01	0.315
				PM-Gain 30			
				F-Offs. 339	Ampl. 2	11:03	0.362
				NPQ Curve	Int. 4	11:06	0.480
					Ampl. 6	11:08	0.510
					Int. 5	11:10	0.479
						11:15	0.518

# Station Data

Station	G 604.5	Cast #	167	Local Date	7.6.2016	Time	8:00
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	SFZ		<b>Measuring Light</b>	12:14	319	443	0.280
				Int. 5	12:15	197	281	0.299
				Freq. 12	12:16	238	305	0.220
				<b>System Parameters</b>	12:16			0.372
				Gain 12 PM-Gain 30 F-Offs. 411	12:17	305	543	0.438
2	16	10m.		<b>Measuring Light</b>	12:21	317	558	0.432
				Int. same	12:21	326	542	0.399
				Freq. same	12:22	307	496	0.381
				<b>System Parameters</b>	12:23	241	553	0.564
				Gain PM-Gain F-Offs.	12:23	231	458	0.496
3	14	15m.		<b>Measuring Light</b>	12:24	329	720	0.543
				Int. same	12:25	478	963	0.504
				Freq. same	12:26	522	1030	0.493
				<b>System Parameters</b>	12:26	544	1025	0.469
				Gain PM-Gain F-Offs.	12:27	554	1122	0.506
4	11	20m. DCM		<b>Measuring Light</b>	12:28	409	943	0.566
				Int. same	12:30	773	1793	0.569
				Freq. same	12:31	511	1103	0.537
				<b>System Parameters</b>	12:31	421	930	0.547
				Gain PM-Gain F-Offs.	12:32	624	1423	0.561
5	10	25m.		<b>Measuring Light</b>	12:33	417	908	0.541
				Int. same	12:34	307	722	0.575
				Freq. same	12:35	389	878	0.557
				<b>System Parameters</b>	12:36	281	690	0.593
				Gain PM-Gain F-Offs.	12:36	312	757	0.588



# Station Data

Station	G604.5	Cast #	1167	Local Date	7.6.2016	Time	8:00
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	30 m.		Measuring Light	12:40	117	370	0.684
				Int. <i>same</i>	12:41	199	491	0.595
				System Parameters	12:42	242	544	0.555
				Gain	12:43	246	550	0.553
				PM-Gain	12:44	173	455	0.620
7	7	35 m.		F-Offs. <i>↑</i>				
				Measuring Light	12:44	94	257	0.634
				Int. <i>same</i>	12:45	117	336	0.652
				Freq. <i>6 12</i>	12:47	184	395	0.539
				System Parameters <i>12 30</i>	12:48	213	450	0.527
8	5	40 m.		Gain <i>447</i>	12:49	349	643	0.457
				PM-Gain	12:55	255	412	0.381
				F-Offs.	12:56	264	404	0.347
				Measuring Light	12:57	194	330	0.412
				Int. <i>6</i>	12:57	215	356	0.396
9	3	60 m.		Freq. <i>12</i>	12:58	223	417	0.465
				System Parameters	12:59	150	145	-
				Gain	13:00	135	133	-
				PM-Gain	13:01	142	155	0.084
				F-Offs.	13:02	173	197	0.122
10	1	100 m.		Measuring Light	13:02	120	110	-
				Int. <i>same</i>	13:03	139	137	-
				Freq.	13:04	104	108	0.037
				System Parameters	13:04	106	142	0.254
				Gain	13:05	137	133	-
7	7	35 m.		PM-Gain	12:50	356	609	0.415
				F-Offs.	12:51	192	382	0.447
				Measuring Light	12:52	228	526	0.567
6	9	30 m.		Int. <i>6</i>	12:53	387	790	0.516
				Freq.	12:54	408	789	0.483
				System Parameters				

# Station Data

Station	G703	Cast #	175	Local Date	7.7.2016	Time	12:45
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Lat. N	69°29.9870	Temp.	1.12	Depth	
Long. W	58°43.1509	Salinity	32.66	Fluor.	0.52

## Samples in dark

Time	13:40
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## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
3	14	20m.		Measuring Light	Ampl. 1	14:18	0.240
				Int. 2	Int. 4	14:20	0.275
				Freq. 12			
				System Parameters	Ampl. 1	14:22	0.393
				Gain 12	Int. 5	14:24	0.291
				PM-Gain 30			
				F-Offs. 290	Ampl. 2	14:27	0.276
					Int. 4	14:29	0.353
						14:31	0.412
				NPQ Curve	Ampl. 6	14:35	0.370
5	9	35m. Dcm		Measuring Light	Ampl. 1	15:00	0.309
				Int. Same	Int. 4	15:03	0.291
				Freq. Same			
				System Parameters	Ampl. 1	15:05	0.248
				Gain	Int. 5	15:07	0.317
				PM-Gain			
				F-Offs.	Ampl. 2	15:10	0.857
					Int. 4	15:12	0.411
				NPQ Curve	Ampl. 6	15:15	0.4418
					Int. 5	15:20	0.389
7	7	50m.		Measuring Light	Ampl. 1	15:27	0.169
				Int. 3	Int. 4	15:29	0.264
				Freq. 12			
				System Parameters	Ampl. 1	15:31	0.221
				Gain 12	Int. 5	15:33	0.151
				PM-Gain 30			
				F-Offs. 475	Ampl. 2	15:36	0.403
					Int. 4	15:38	0.474
				NPQ Curve	Ampl. 6	15:41	0.440
					Int. 5	15:46	0.501

didn't change settings to ampl. 2

How did Fo get so high?

# Station Data

Station	G703	Cast #	175	Local Date	7.7.2016	Time	12:45
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		Measuring Light	15:56	156	175	0.109
				Int. 4	15:57	320	325	0.015
				Freq. 12	15:58	70	104	0.327
				System Parameters	15:59	90	106	0.151
				Gain 12 PM-Gain 30 F-Offs. 782	16:00	166	160	0.0
2	16	10m.		Measuring Light	16:01	363	473	0.233
				Int. Same	16:02	439	673	0.348
				Freq. Same	16:02	550	822	0.331
				System Parameters	16:03	402	502	0.199
				Gain PM-Gain F-Offs.	16:04	393	531	0.260
3	14	20m.		Measuring Light	16:05	371	452	0.179
				Int. 2	16:07	375	602	0.377
				Freq. 12	16:08	421	569	0.260
				System Parameters	16:09	453	663	0.317
				Gain 12 PM-Gain 30 F-Offs. 290	16:10	413	487	0.152
4	12	30m.		Measuring Light	16:11	581	887	0.345
				Int. Same	16:12	532	695	0.235
				Freq. Same	16:15	586	773	0.242
				System Parameters	16:16	632	852	0.258
				Gain PM-Gain F-Offs.	16:17	700	942	0.257
5	9	35m. DCM		Measuring Light	16:17	302	412	0.267
				Int. Same	16:18	441	531	0.169
				Freq. Same	16:19	440	680	0.353
				System Parameters	16:20	442	557	0.206
				Gain PM-Gain F-Offs.	16:24	424	646	0.344

Fo too low



# Station Data

Station	G703	Cast #	175	Local Date	7.7.2016	Time	12:45
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	8	40m.		Measuring Light	16:24	442	663	0.333
				Int. Same	16:25	543	944	0.425
				Freq.	16:26	523	788	0.336
				System Parameters	16:26	416	684	0.392
				Gain	16:27	415	611	0.321
7	7	50m.		PM-Gain				
				F-Offs.	16:29	97	206	0.536
				Measuring Light	16:30	128	264	0.515
				Int. 4	16:31	167	311	0.463
				Freq. 12	16:32	350	644	0.457
8	5	60m.		System Parameters	16:33	363	642	0.435
				Gain 12	16:39	111	238	0.534
				PM-Gain 30	16:40	142	276	0.486
				F-Offs. 782	16:41	118	188	0.372
				Measuring Light	16:42	178	328	0.457
9	3	80m.		Int. 5	16:42	148	270	0.452
				Freq. 12	16:45	113	111	-
				System Parameters	16:46	58	79	0.266
				Gain 12	16:47	57	75	0.240
				PM-Gain 30	16:48	66	224	0.705
10	1	100m.		F-Offs. 1334				
				Measuring Light	16:48	5	16	-
				Int.				
				Freq.				
				System Parameters				
				Gain				
				PM-Gain				
				F-Offs.				

↑  
Ampl. 1  
←  
Ampl. 6  
↓

F too low for good Fv/Fm all should be considered zero

5 not enough biomass to get a good signal consider all zero

# Station Data

Station	G707	Cast #	183	Local Date	7.8.2016	Time	10:00
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Lat. N	69 30.7229	Temp.	1.63	Depth	1420 m.
Long. W	59 47.9849	Salinity	32.01	Fluor.	0.66

## Samples in dark

Time	11:21
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## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
3	14	20 m.		<b>Measuring Light</b>	Ampl. 1	12:07	0.212
				Int. 2	Int. 4	12:09	0.240
				Freq. 4			
				<b>System Parameters</b>	Ampl. 1	12:11	0.278
				Gain 6	Int. 5	12:14	0.253
				PM-Gain 30			
				<b>F-Offs.</b> 172	Ampl. 2	12:16	0.504
					Int. 4	12:18	0.417
				NPQ Curve	Ampl. 6	12:21	0.413
					Int. 5	12:26	0.521
5	10	35 m. DCM		<b>Measuring Light</b>	Ampl. 1	12:31	0.495
				Int.	Int. 4	<del>12:32</del> 12:34	0.508
				Freq. same			
				<b>System Parameters</b>	Ampl. 1	12:36	0.516
				Gain	Int. 5	12:38	0.366
				PM-Gain			
				<b>F-Offs.</b>	Ampl. 2	12:40	0.567
					Int. 4	12:42	0.506
				NPQ Curve	Ampl. 6	12:45	0.579
					Int. 5	12:50	0.454
7	7	50 m.		<b>Measuring Light</b>	Ampl. 1	13:00	0.426
				Int. 3	Int. 4	13:03	0.441
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	13:06	0.493
				Gain 12	Int. 5	13:09	0.487
				PM-Gain 30			
				<b>F-Offs.</b> 505	Ampl. 2	13:11	0.559
					Int. 4	13:13	0.465
				NPQ Curve	Ampl. 6	13:16	0.552
					Int. 5	13:21	0.513

**Station Data**

Station	G707	Cast #	183	Local Date	7.8.2016	Time	10:00
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		<b>Measuring Light</b>	13:29	267	311	0.141
				Int. 2	13:30	411	536	0.233
				Freq. 12	13:30	231	290	0.203
				<b>System Parameters</b>	13:31	332	400	0.170
				Gain 12 PM-Gain 30 F-Offs. 289	13:32	296	407	0.273
2	16	10m.		<b>Measuring Light</b>	13:33	417	566	0.263
				Int. Same	13:34	657	1043	0.370
				Freq. Same	13:35	444	687	0.354
				<b>System Parameters</b>	13:35	472	745	0.366
				Gain PM-Gain F-Offs.	13:36	571	846	0.325
3	14	20 m. RLC		<b>Measuring Light</b>	13:37	378	673	0.438
				Int. 2	13:38	438	759	0.423
				Freq. 4	13:39	416	751	0.446
				<b>System Parameters</b>				
				Gain 6 PM-Gain 30 F-Offs. 172				
4	13	30 m.		<b>Measuring Light</b>	13:40	556	1365	0.593
				Int. Same	13:41	639	1304	0.510
				Freq. Same	13:42	502	1201	0.582
				<b>System Parameters</b>	13:43	486	1094	0.556
				Gain PM-Gain F-Offs.	13:44	488	1247	0.609
5	10	35m. DCM RLC		<b>Measuring Light</b>	13:44	380	911	0.583
				Int. Same	13:45	399	893	0.553
				Freq. Same	13:46	431	994	0.566
				<b>System Parameters</b>	13:47	437	937	0.534
				Gain PM-Gain F-Offs.	13:48	409	923	0.557



# Station Data

Station	G707	Cast #	183	Local Date	7-8-2016	Time	10:00
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	40m.		<b>Measuring Light</b>	13:52	432	995	0.566
				Int. 2	13:53	527	1214	0.566
				Freq. 12	13:54	425	937	0.546
				<b>System Parameters</b>				
				Gain 12 PM-Gain 30 F-Offs. 313				
7	7	50m. RLC		<b>Measuring Light</b>	13:55	317	813	0.610
				Int. 3 ← same	13:57	253	574	0.559
				Freq. 12	13:58	278	566	0.509
				<b>System Parameters</b>	13:58	257	466	0.448
				Gain 12 PM-Gain 30 F-Offs. 505	13:59	236	693	0.659
8	5	60m.		<b>Measuring Light</b>	14:03	267	592	0.549
				Int. 5	14:04	318	745	0.573
				Freq. 12	14:05	287	645	0.555
				<b>System Parameters</b>				
				Gain 12 PM-Gain 30 F-Offs. 914				
9	3	70m.		<b>Measuring Light</b>	14:05	161	335	0.519
				Int. 5	14:06	134	308	0.565
				Freq. 12	14:08	176	355	0.504
				<b>System Parameters</b>	14:09	166	393	0.578
				Gain 12 PM-Gain 30 F-Offs. 914	14:09	211	509	0.585
10	1	100m.		<b>Measuring Light</b>	14:11	85	67	-
				Int. Same	14:12	34	40	-
				Freq. Same	14:12	76	124	0.424
				<b>System Parameters</b>	14:13	93	126	0.262
				Gain PM-Gain F-Offs.	14:14	93	74	-

Fv too low for good Fv/Fm

# Station Data

Station	G713	Cast #	192	Local Date	7.9.2016	Time	12:45
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Lat. N	69° 29.2809	Temp.	1.32	Depth	1902
Long. W	61° 36.3037	Salinity	31.67	Fluor.	0.64

## Samples in dark

Time	13:49
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## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
2	16	10m.		<b>Measuring Light</b>	Ampl. 1	14:22	0.085
				Int. 2	Int. 4	14:24	0.048
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	14:26	0.122
				Gain 12	Int. 5	14:28	0.180
				PM-Gain 30			
				<b>F-Offs.</b> 349	Ampl. 2	14:31	0.339
					Int. 4	14:33	0.262
				NPQ Curve	Ampl. 6	14:35	0.298
					Int. 5	14:40	0.454
4	12	20m. DCM		<b>Measuring Light</b>	Ampl. 1	14:47	0.429
				Int. 2	Int. 4	14:50	0.342
				Freq. 4			
				<b>System Parameters</b>	Ampl. 1	14:53	0.347
				Gain 6	Int. 5	14:56	0.256
				PM-Gain 30			
				<b>F-Offs.</b> 193	Ampl. 2	14:58	0.566
					Int. 4	15:00	0.332
				NPQ Curve	Ampl. 6	15:02	0.558
					Int. 5	15:08	0.420
6	9	30m.		<b>Measuring Light</b>	Ampl. 1	15:16	0.397
				Int. 3	Int. 4	15:19	0.407
				Freq. 12			
				<b>System Parameters</b>	Ampl. 1	15:21	0.490
				Gain 12	Int. 5	15:23	0.394
				PM-Gain 30			
				<b>F-Offs.</b> 557	Ampl. 2	15:25	0.502
					Int. 4	15:27	0.585
				NPQ Curve	Ampl. 6	15:30	0.575
					Int. 5	15:34	0.578

# Station Data

Station	G713	Cast #	192	Local Date	7.9.2016	Time	12:45
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz		Measuring Light	15:45	431	652	0.339
				Int. 3	:46	505	727	0.305
				Freq. 12	:47	434	633	0.314
				System Parameters				
				Gain 12 PM-Gain 30 F-Offs. 557				
2	16	10m. RLC		Measuring Light	15:48	608	951	0.361
				Int. Same	:49	613	954	0.357
				Freq. Same	:50	665	965	0.311
				System Parameters				
				Gain PM-Gain F-Offs.	:50 :51	616 631	987 971	0.376 0.350
3	15	15m.		Measuring Light	15:56	417	642	0.350
				Int. 2	:57	469	694	0.324
				Freq. 4	:58	547	853	0.359
				System Parameters				
				Gain 8 PM-Gain 30 F-Offs. 193				
4	12	20m. PCM RLC		Measuring Light	15:59	450	831	0.458
				Int. Same	16:00	465	874	0.468
				Freq. Same	:00	433	921	0.530
				System Parameters				
				Gain PM-Gain F-Offs.	:01 :01	477 378	891 871	0.465 0.566
5	11	25m.		Measuring Light	16:03	418	905	0.40538
				Int. 3	:04	411	942	0.564
				Freq. 12	:05	425	965	0.560
				System Parameters				
				Gain 12 PM-Gain 30 F-Offs. 557	:06	430	969	0.556



# Station Data

Station	G713	Cast #	192	Local Date	7-9-2016	Time	12:45
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## PAM Measurements - Fv/Fm

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	30m.		Measuring Light	16:07	387	896	0.568
				Int. same	:08	384	895	0.571
				Freq. same	:09	424	990	0.572
				System Parameters				
				Gain				
7	7	35m.		PM-Gain				
				F-Offs.				
				Measuring Light	16:11	407	915	0.555
				Int. 4	:12	413	970	0.577
				Freq. 12	:13	442	1109	0.601
8	5	40m.		System Parameters				
				Gain 12	:14	405	991	0.591
				PM-Gain 30	:14	386	833	0.537
				F-Offs. 728				
				Measuring Light	16:17	218	566	0.615
9	3	70m.		Int. 5	:18	208	436	0.523
				Freq. 12	:19	281	615	0.543
				System Parameters	:20	180	391	0.540
				Gain 12	:20	220	503	0.563
				PM-Gain 30				
10	1	100m.		F-Offs. 938	16:23	28	97	0.711
				Measuring Light	:24	74	53	-
				Int. same	:24	91	118	0.229
				Freq. same	:25	91	139	0.345
				System Parameters	:26	24	48	-
				Gain	16:27	79	178	0.556
				PM-Gain	:28	88	118	0.254
				F-Offs.	:28	109	196	0.444
				Measuring Light	:29	152	331	0.541
				Int. Same	:30	131	190	0.311
				Freq. Same				
				System Parameters				
				Gain				
				PM-Gain				
				F-Offs.				

For low for good Fm' Same

# Station Data

Station	G719	Cast #	201	Local Date	7.10.2016	Time	8:15
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Lat. N	64°30.3043	Temp.	-1.20 °C	Depth	1954
Long. W	63°13.0849	Salinity	30.92	Fluor.	0.76

## Samples in dark

Time	9:33
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## PAM Measurements - Rapid Light Curves

Tube	Niskin	Depth	Sample #	Settings	Light	Time	1st Y(II)
3	14	12 m.		<u>Measuring Light</u>	Ampl. 1	10:11	0.332
				Int. 2	Int. 4	10:14	0.328
				Freq. 4			
				<u>System Parameters</u>	Ampl. 1	10:16	0.214
				Gain 8	Int. 5	10:18	0.381
				PM-Gain 30			
				<u>F-Offs.</u> 193	Ampl. 2	10:21	0.525
					Int. 4	10:23	0.476
				NPQ Curve	Ampl. 6	10:25	0.477
					Int. 5	10:31	0.538
5	10	21 m. DCM		<u>Measuring Light</u>	Ampl. 1	10:37	0.391
				Int. same	Int. 4	10:39	0.390
				Freq.			
				<u>System Parameters</u>	Ampl. 1	10:42	0.406
				Gain	Int. 5	10:44	0.368
				PM-Gain			
				<u>F-Offs.</u>	Ampl. 2	10:46	0.465
					Int. 4	10:48	0.559
				NPQ Curve	Ampl. 6	10:51	0.597
					Int. 5	10:56	0.646
7	7	30 m.		<u>Measuring Light</u>	Ampl. 1	11:04	0.414
				Int. 3	Int. 4	11:06	0.456
				Freq. 12			
				<u>System Parameters</u>	Ampl. 1	11:09	0.423
				Gain 12	Int. 5	11:11	0.465
				PM-Gain 30			
				<u>F-Offs.</u> 545	Ampl. 2	11:13	0.538
					Int. 4	11:16	0.520
				NPQ Curve	Ampl. 6	11:18	0.537
					Int. 5	11:23	0.542

**Station Data**

Station	G719	Cast #	201	Local Date	7.10.2016	Time	8:15
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
1	18	sfz.		<b>Measuring Light</b>	11:32	746	1326	0.437
				Int. 2	11:33	536	985	0.456
				Freq. 12	11:34	532	1025	0.481
				<b>System Parameters</b>	11:35	531	1065	0.501
				Gain 12 PM-Gain 30 F-Offs. 326	11:36	533	1008	0.471
2	16	5 m.		<b>Measuring Light</b>	11:39	285	655	0.565
				Int. 2	11:41	636	1041	0.389
				Freq. 4	11:42	395	856	0.539
				<b>System Parameters</b>	11:43	538	1010	0.467
				Gain 8 PM-Gain 30 F-Offs. 193	11:44	765	1856	0.588
3	14	12 m. RLC		<b>Measuring Light</b>	11:45	377	872	0.568
				Int. 2	11:45	631	1309	0.518
				Freq. 4	11:46	446	1142	0.609
				<b>System Parameters</b>	11:47	502	992	0.494
				Gain 8 PM-Gain 30 F-Offs. 193	11:48	418	805	0.481
4	13	16 m.		<b>Measuring Light</b>	11:49	402	944	0.574
				Int. Same	11:50	331	786	0.579
				Freq. Same	11:51	376	1015	0.630
				<b>System Parameters</b>	11:52	443	787	0.437
				Gain PM-Gain F-Offs.	11:53	493	1055	0.533
5	10	21 m. DCM RLC		<b>Measuring Light</b>	11:54	470	1207	0.611
				Int. Same	11:55	583	1138	0.488
				Freq. Same	11:55	435	728	0.402
				<b>System Parameters</b>	11:56	380	793	0.521
				Gain PM-Gain F-Offs.	11:57	351	816	0.570



**Station Data**

Station	G719	Cast #	201	Local Date	7-10-2016	Time	8:15
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**PAM Measurements - Fv/Fm**

Tube	Niskin	Depth	Sample #	Settings	Time	F	Fm'	Y(II)
6	9	24m.		<b>Measuring Light</b>	12:44	449	912	0.508
				Int. <i>Same</i>	:45	473	943	0.498
				<b>System Parameters</b>	:46	399	955	0.582
				Gain	:47	436	921	0.527
				PM-Gain	:48	483	950	0.492
7	7	30m.		<b>Measuring Light</b>	12:51	364	867	0.580
				Int. 4	:52	391	879	0.555
				Freq. 12	:53	453	1001	0.547
				<b>System Parameters</b>	:53	409	894	0.543
				Gain 12	:54	382	908	0.579
8	5	40m.		<b>Measuring Light</b>	12:55	392	874	0.551
				Int. <i>Same</i>	:56	361	846	0.573
				Freq. <i>Same</i>	:57	325	748	0.566
				<b>System Parameters</b>	:58	308	822	0.625
				Gain	:59	341	760	0.551
9	3	70m.		<b>Measuring Light</b>	13:01	123	195	0.369
				Int. 5	:03	126	176	0.284
				Freq. 12	:04	93	182	0.489
				<b>System Parameters</b>	:05	111	199	0.442
				Gain 12	:06	169	203	0.167
10	1	100m.		<b>Measuring Light</b>	13:10	81	100	0.190
				Int. <i>Same</i>	:11	96	116	0.172
				Freq. <i>Same</i>	:11	61	47	-
				<b>System Parameters</b>	:12	161	143	-
				Gain	:13	147	200	0.265
				PM-Gain				
				F-Offs.				