

Station Data

| | | | | | | | |
|---------|-------|--------|-----|------------|-----------|------|------|
| Station | G 204 | Cast # | 033 | Local Date | 6-15-2016 | Time | 8:00 |
|---------|-------|--------|-----|------------|-----------|------|------|

PAM Measurements - Fv/Fm

| Tube | Niskin | Depth | Sample # | Settings | Time | F | Fm' | Y(II) |
|------|--------|-------|----------|-------------------|-------|-----|-----|-------|
| 1 | 18 | sfz | | Measuring Light | 11:21 | 422 | 436 | 0.032 |
| | | | | Int. 1 | 11:22 | 396 | 477 | 0.170 |
| | | | | Freq. 12 | 11:22 | 374 | 406 | 0.079 |
| | | | | System Parameters | 11:23 | 306 | 366 | 0.164 |
| | | | | Gain 12 | 11:24 | 579 | 646 | 0.104 |
| 3 | 14 | 10 m. | | PM-Gain 30 | 11:25 | 273 | 347 | 0.213 |
| | | | | F-Offs. 87 | 11:26 | 410 | 604 | 0.321 |
| | | | | Measuring Light | 11:27 | 344 | 438 | 0.215 |
| | | | | Int. same | 11:29 | 382 | 413 | 0.075 |
| | | | | Freq. same | 11:30 | 361 | 441 | 0.181 |
| 5 | 9 | 20 m. | | System Parameters | 11:33 | 418 | 600 | 0.303 |
| | | | | Gain 12 | 11:34 | 465 | 569 | 0.183 |
| | | | | PM-Gain 30 | 11:35 | 391 | 580 | 0.326 |
| | | | | F-Offs. 285 | 11:36 | 411 | 644 | 0.362 |
| | | | | Measuring Light | 11:37 | 329 | 500 | 0.342 |
| 7 | 5 | 30 m. | | Int. 2 | 11:39 | 315 | 473 | 0.334 |
| | | | | Freq. same | 11:39 | 234 | 368 | 0.364 |
| | | | | System Parameters | 11:40 | 204 | 353 | 0.422 |
| | | | | Gain 12 | 11:41 | 226 | 370 | 0.389 |
| | | | | PM-Gain 30 | 11:42 | 212 | 343 | 0.382 |
| 8 | 3 | 40 m. | | F-Offs. | 11:44 | 217 | 312 | 0.304 |
| | | | | Measuring Light | 11:45 | 182 | 298 | 0.389 |
| | | | | Int. 3 | 11:46 | 134 | 195 | 0.313 |
| | | | | Freq. 12 | 11:47 | 173 | 258 | 0.329 |
| | | | | System Parameters | 11:48 | 213 | 300 | 0.290 |
| | | | | Gain 12 | | | | |
| | | | | PM-Gain 30 | | | | |
| | | | | F-Offs. 350 | | | | |

Station Data

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|---------|-------|--------|----------|------------|-----------|------|------|
| Station | G 204 | Cast # | 1601-033 | Local Date | 6.15.2016 | Time | 8:00 |
|---------|-------|--------|----------|------------|-----------|------|------|

PAM Measurements - Fv/Fm

| Tube | Niskin | Depth | Sample # | Settings | Time | F | Fm' | Y(II) |
|------|--------|-------|----------|--------------------------|-------|-----|-----|-------|
| 9 | 2 | 60 m. | | Measuring Light | 11:51 | 151 | 217 | 0.304 |
| | | | | Int. 4 | 11:52 | 224 | 311 | 0.280 |
| | | | | Freq. 12 | 11:53 | 48 | 87 | 0.448 |
| | | | | System Parameters | 11:54 | 61 | 108 | 0.435 |
| | | | | Gain 12 | 11:54 | 96 | 140 | 0.314 |
| 10 | 1 | 80 m. | | PM-Gain 30 | 11:55 | 30 | 58 | 0.483 |
| | | | | F-Offs. 525 | 11:56 | 26 | 31 | - |
| | | | | Measuring Light | 11:57 | 23 | 27 | - |
| | | | | Int. | 11:58 | 16 | 32 | - |
| | | | | Freq. same | 11:59 | 12 | 25 | - |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |

Station Data

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|---------|-------|--------|-----|------------|-----------|------|------|
| Station | G 207 | Cast # | 039 | Local Date | 6.16.2016 | Time | 8:00 |
|---------|-------|--------|-----|------------|-----------|------|------|

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|---------|-------------|----------|-------|--------|--------|
| Lat. N | 68° 47.4065 | Temp. | -0.62 | Depth | 322 m. |
| Long. W | 58° 32.9616 | Salinity | 32.26 | Fluor. | 0.38 |

Samples in dark

Time 8:57

PAM Measurements - Rapid Light Curves

| Tube | Niskin | Depth | Sample # | Settings | Light | Time | 1st Y(II) |
|------|----------|--------------|------------------------|--|---------|-----------------------------|-----------|
| 2 | 16 | 10 m. | | Measuring Light | Ampl. 1 | 9:34 | 0.076 |
| | | | | Int. 1 | Int. 4 | 9:36 | 0.079 |
| | | | | Freq. 12 | | | |
| | | | | System Parameters | Ampl. 1 | 9:39 | 0.037 |
| | | | | Gain 12 | Int. 5 | 9:41 | - |
| | | | | PM-Gain 30 | | | |
| | | | | F-Offs. 102 | Ampl. 2 | 9:44 | 0.160 |
| | | | | | Int. 4 | 9:46 | 0.061 |
| | | | | NPQ Curve | Ampl. 6 | 9:49 | - |
| | | | | <input checked="" type="checkbox"/> NPQ | Int. 5 | 9:54 | 0.042 |
| 3 | Carboy A | 15 m. DCM | FLUSH #12 sample | Measuring Light | Ampl. 1 | 9:59 | 0.059 |
| | | | | Int. Same | Int. 4 | 10:01 | - |
| | | | | Freq. Same | | | |
| | | | | System Parameters | Ampl. 1 | 10:04 | 0.041 |
| | | | | Gain | Int. 5 | 10:06 | 0.005 |
| | | | | PM-Gain | | | |
| | | | | F-Offs. | Ampl. 2 | 10:09 | 0.327 |
| | | | | | Int. 4 | 10:11 | 0.325 |
| | | | | NPQ Curve | Ampl. 6 | 10:15 | 0.219 |
| | | | | <input checked="" type="checkbox"/> NPQ BOX checked! | Int. 5 | 10:20 ^{not a max.} | 0.044 |
| 5 | 9 | 25 m. | | Measuring Light | Ampl. 1 | 10:29 | 0.092 |
| | | | | Int. Same | Int. 4 | 10:31 | 0.059 |
| | | | | Freq. Same | | | |
| | | | | System Parameters | Ampl. 1 | 10:34 | 0.045 |
| | | | | Gain | Int. 5 | 10:36 | 0.073 |
| | | | | PM-Gain | | | |
| | | | | F-Offs. | Ampl. 2 | 10:38 | 0.366 |
| | | | | | Int. 4 | 10:40 | 0.346 |
| | | | | NPQ Curve | Ampl. 6 | 10:43 | 0.122 |
| | | | | <input checked="" type="checkbox"/> NPQ | Int. 5 | 10:46 | 0.222 |

?
why
so
high
restat.
10:24
0.014

Station Data

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|---------|------|--------|-----|------------|-----------|------|------|
| Station | G207 | Cast # | 039 | Local Date | 6.16.2016 | Time | 8:00 |
|---------|------|--------|-----|------------|-----------|------|------|

PAM Measurements - Fv/Fm

| Tube | Niskin | Depth | Sample # | Settings | Time | F | Fm' | Y(II) |
|------|--------|-------|----------|--------------------------------------|-------|-----|-----|-------|
| 1 | 18 | sfz | | Measuring Light | 11:00 | 212 | 207 | - |
| | | | | Int. Freq. <i>same</i> | 11:01 | 265 | 250 | - |
| | | | | System Parameters | 11:02 | 270 | 287 | 0.059 |
| | | | | Gain | 11:03 | 294 | 273 | - |
| | | | | PM-Gain F-Offs. | 11:04 | 284 | 264 | - |
| 4 | 12 | 20 m. | | Measuring Light | 11:05 | 516 | 493 | - |
| | | | | Int. Freq. <i>same</i> | 11:06 | 639 | 713 | 0.164 |
| | | | | System Parameters | 11:07 | 542 | 570 | 0.049 |
| | | | | Gain | 11:08 | 443 | 429 | - |
| | | | | PM-Gain F-Offs. | 11:09 | 430 | 428 | - |
| 6 | 7 | 30 m. | | Measuring Light | 11:11 | 281 | 375 | 0.251 |
| | | | | Int. 2 | 11:12 | 217 | 366 | 0.407 |
| | | | | Freq. 12 | 11:13 | 50 | 370 | 0.865 |
| | | | | System Parameters | 11:16 | 231 | 367 | 0.371 |
| | | | | Gain 12 PM-Gain 30 F-Offs. 243 | 11:17 | 270 | 369 | 0.268 |
| 7 | 5 | 35 m. | | Measuring Light | 11:18 | 215 | 317 | 0.322 |
| | | | | Int. <i>same</i> | 11:19 | 251 | 377 | 0.334 |
| | | | | Freq. <i>same</i> | 11:20 | 237 | 345 | 0.313 |
| | | | | System Parameters | 11:20 | 235 | 338 | 0.305 |
| | | | | Gain PM-Gain F-Offs. | 11:21 | 244 | 364 | 0.330 |
| 8 | 3 | 40 m. | | Measuring Light | 11:22 | 159 | 196 | 0.189 |
| | | | | Int. <i>same</i> | 11:23 | 157 | 201 | 0.219 |
| | | | | Freq. <i>same</i> | 11:24 | 180 | 222 | 0.189 |
| | | | | System Parameters | 11:25 | 143 | 159 | 0.101 |
| | | | | Gain PM-Gain F-Offs. | 11:26 | 166 | 199 | 0.166 |

Station Data

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|---------|------|--------|-----|------------|-----------|------|------|
| Station | G207 | Cast # | 039 | Local Date | 6-16-2016 | Time | 8:00 |
|---------|------|--------|-----|------------|-----------|------|------|

PAM Measurements - Fv/Fm

| Tube | Niskin | Depth | Sample # | Settings | Time | F | Fm' | Y(II) |
|------|--------|-------|----------|------------------------|-------|-----|-----|-------|
| 9 | 2 | 50m. | | Measuring Light | 11:27 | 92 | 88 | - |
| | | | | Int. Freq. <i>same</i> | 11:28 | 111 | 106 | - |
| | | | | System Parameters | 11:29 | 122 | 123 | 0.008 |
| | | | | Gain | 11:30 | 134 | 136 | 0.015 |
| | | | | PM-Gain | 11:31 | 98 | 95 | - |
| 10 | 1 | 70m. | | F-Offs. | 11:31 | 71 | 77 | 0.078 |
| | | | | Measuring Light | 11:31 | 71 | 77 | 0.078 |
| | | | | Int. Freq. <i>same</i> | 11:32 | 72 | 73 | 0.014 |
| | | | | System Parameters | 11:33 | 65 | 55 | - |
| | | | | Gain | 11:34 | 77 | 62 | - |
| | | | | PM-Gain | 11:34 | 89 | 97 | 0.082 |
| | | | | F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain | | | | |
| | | | | PM-Gain | | | | |
| | | | | F-Offs. | | | | |

Station Data

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|---------|-----|--------|-----|------------|---------|------|-------|
| Station | 209 | Cast # | 043 | Local Date | 6.16.16 | Time | 17:30 |
|---------|-----|--------|-----|------------|---------|------|-------|

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|---------|-------------|----------|--------|--------|------|
| Lat. N | 68° 50.9681 | Temp. | 0.78°C | Depth | 306 |
| Long. W | 58° 49.182 | Salinity | 33.17 | Fluor. | 2.03 |

Samples in dark

| | |
|------|-------|
| Time | 18:40 |
|------|-------|

PAM Measurements - Rapid Light Curves

| Tube | Niskin | Depth | Sample # | Settings | Light | Time | 1st Y(II) |
|------|--------|--------------|----------|-------------------|---------|-------|-----------|
| 4 | 16 | 25 m. | | Measuring Light | Ampl. 1 | 19:43 | 0.010 |
| | | | | Int. 1 | Int. 4 | 19:45 | 0.031 |
| | | | | Freq. 12 | Ampl. 1 | 19:49 | 0.023 |
| | | | | System Parameters | Int. 5 | 19:52 | 0.036 |
| | | | | Gain 12 | Ampl. 2 | 19:54 | 0.238 |
| | | | | PM-Gain 30 | Int. 4 | 19:56 | 0.190 |
| | | | | F-Offs. 287? | Ampl. 6 | 20:00 | 0.229 |
| | | | | NPQ Curve | Int. 5 | 20:05 | 0.089 |
| | | | | | | | |
| | | | | | | | |
| 5 | 15 | 30 m. DUM | | Measuring Light | Ampl. 1 | 20:12 | 0.138 |
| | | | | Int. same | Int. 4 | 20:14 | 0.231 |
| | | | | Freq. same | Ampl. 1 | 20:17 | - |
| | | | | System Parameters | Int. 5 | 20:19 | 0.322 |
| | | | | Gain | Ampl. 2 | 20:22 | 0.390 |
| | | | | PM-Gain | Int. 4 | 20:25 | 0.359 |
| | | | | F-Offs. | Ampl. 6 | 20:27 | 0.484 |
| | | | | NPQ Curve | Int. 5 | 20:33 | 0.035 |
| | | | | | | | |
| | | | | | | | |
| 7 | 13 | 40 m. | | Measuring Light | Ampl. 1 | 20:41 | 0.215 |
| | | | | Int. 2 | Int. 4 | 20:44 | 0.305 |
| | | | | Freq. 12 | Ampl. 1 | 20:46 | 0.204 |
| | | | | System Parameters | Int. 5 | 20:49 | 0.421 |
| | | | | Gain 12 | Ampl. 2 | 20:51 | 0.591 |
| | | | | PM-Gain 30 | Int. 4 | 20:54 | 0.460 |
| | | | | F-Offs. 235 | Ampl. 6 | 20:57 | 0.322 |
| | | | | NPQ Curve | Int. 5 | 21:02 | 0.484 |
| | | | | | | | |
| | | | | | | | |

unstable
signal

Station Data

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|---------|-----|--------|-----|------------|---------|------|-------|
| Station | 209 | Cast # | 043 | Local Date | 6.16.14 | Time | 17:30 |
|---------|-----|--------|-----|------------|---------|------|-------|

PAM Measurements - Fv/Fm

| Tube | Niskin | Depth | Sample # | Settings | Time | F | Fm' | Y(II) |
|------|--------|-------|----------|--|-------|-----|------|-------|
| 1 | 19 | 5m | | Measuring Light | 21:10 | 666 | 701 | 0.050 |
| | | | | Int. 2 Freq. 12 <i>Fpo</i> <i>amp. 6</i> | 21:11 | 792 | 1036 | 0.236 |
| | | | | System Parameters | 21:12 | | | 0.193 |
| | | | | Gain 12 PM-Gain 30 | 21:13 | 625 | 802 | 0.221 |
| | | | | F-Offs. 235 235 | | | | |
| 2 | 18 | 10 m. | | Measuring Light | 21:14 | | | 0.119 |
| | | | | Int. <i>Same</i> | 21:15 | | | 0.247 |
| | | | | Freq. <i>Same</i> | 21:16 | 562 | 621 | 0.095 |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |
| 3 | 17 | 20 m. | | Measuring Light | 21:17 | | | 0.076 |
| | | | | Int. <i>Same</i> | 21:18 | | | 0.010 |
| | | | | Freq. <i>Same</i> | 21:19 | | | 0.095 |
| | | | | System Parameters | 21:20 | | | 0.058 |
| | | | | Gain PM-Gain F-Offs. | | | | |
| 6 | 14 | 35 m. | | Measuring Light | 21:24 | | | 0.048 |
| | | | | Int. 1 | 21:25 | | | 0.552 |
| | | | | Freq. 12 | 21:26 | | | 0.031 |
| | | | | System Parameters | 21:27 | 564 | 596 | 0.054 |
| | | | | Gain 12 PM-Gain 30 F-Offs. 56 | | | | |
| 8 | 12 | 45 m. | | Measuring Light | 21:30 | 249 | 390 | 0.362 |
| | | | | Int. 2 | 21:31 | | | 0.463 |
| | | | | Freq. 12 | 21:32 | | | 0.860 |
| | | | | System Parameters | 21:33 | | | 0.319 |
| | | | | Gain 12 PM-Gain 30 F-Offs. 231 | | | | |
| | | | | | | | | |
| | | | | | | | | |

206
32

Station Data

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|---------|-----|--------|-----|------------|---------|------|-------|
| Station | 209 | Cast # | 043 | Local Date | 6.16.16 | Time | 17:30 |
|---------|-----|--------|-----|------------|---------|------|-------|

PAM Measurements - Fv/Fm

| Tube | Niskin | Depth | Sample # | Settings | Time | F | Fm' | Y(II) |
|------|--------|-------|----------|----------------------------|-------|-----|-----|-------|
| 9 | 11 | 50m. | | Measuring Light | 21:34 | 130 | 133 | 0.023 |
| | | | | Int. <i>same</i> | 21:35 | 140 | 180 | 0.222 |
| | | | | Freq. | 21:38 | 134 | 154 | 0.130 |
| | | | | System Parameters | 21:36 | 136 | 167 | 0.186 |
| | | | | Gain PM-Gain F-Offs. | | | | |
| 10 | 9 | 70m. | | Measuring Light | 21:37 | 54 | 49 | - |
| | | | | Int. <i>same</i> | 21:38 | 40 | 32 | - |
| | | | | Freq. | 21:39 | 46 | 41 | - |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |
| | | | | Measuring Light | | | | |
| | | | | Int. | | | | |
| | | | | Freq. | | | | |
| | | | | System Parameters | | | | |
| | | | | Gain PM-Gain F-Offs. | | | | |

Station Data

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|---------|-------|--------|-----|------------|-----------|------|----------|
| Station | G 300 | Cast # | 048 | Local Date | 6-17-2016 | Time | 12:15 pm |
|---------|-------|--------|-----|------------|-----------|------|----------|

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|---------|-------------|----------|--------|--------|--------|
| Lat. N | 60° 59.7031 | Temp. | 1.31°C | Depth | 197 m. |
| Long. W | 56° 47.3626 | Salinity | 33.65 | Fluor. | 0.16 |

Samples in dark

Time 13:15

PAM Measurements - Rapid Light Curves

| Tube | Niskin | Depth | Sample # | Settings | Light | Time | 1st Y(II) |
|------|--------|--------------|----------|--------------------------|---------|-------|-----------|
| 3 | 15 | 30 m. | | Measuring Light | Ampl. 1 | 14:04 | 0.016 |
| | | | | Int. 2 | Int. 4 | 14:06 | 0.087 |
| | | | | Freq. 12 | | | |
| | | | | System Parameters | Ampl. 1 | 14:09 | 0.136 |
| | | | | Gain 12 | Int. 5 | 14:11 | 0.011 |
| | | | | PM-Gain 30 | | | |
| | | | | F-Offs. 258 | Ampl. 2 | 14:14 | 0.346 |
| | | | | | Int. 4 | 14:16 | 0.153 |
| | | | | NPQ Curve | Ampl. 6 | 14:20 | 0.327 |
| | | | | | Int. 5 | 14:25 | 0.277 |
| 5 | 10 | 45 m. DCM | | Measuring Light | Ampl. 1 | 14:33 | — |
| | | | | Int. 1 | Int. 4 | 14:36 | 0.294 |
| | | | | Freq. 12 | | | |
| | | | | System Parameters | Ampl. 1 | 14:39 | 0.087 |
| | | | | Gain 12 | Int. 5 | 14:41 | 0.015 |
| | | | | PM-Gain 30 | | | |
| | | | | F-Offs. 88 | Ampl. 2 | 14:44 | 0.188 |
| | | | | | Int. 4 | 14:47 | 0.293 |
| | | | | NPQ Curve | Ampl. 6 | 14:50 | 0.003 |
| | | | | | Int. 5 | 14:55 | 0.090 |
| 7 | 6 | 60 m. | | Measuring Light | Ampl. 1 | 15:01 | 0.086 |
| | | | | Int. Same | Int. 4 | 15:03 | 0.074 |
| | | | | Freq. Same | | | |
| | | | | System Parameters | Ampl. 1 | 15:07 | — |
| | | | | Gain | Int. 5 | 15:10 | 0.018 |
| | | | | PM-Gain | | | |
| | | | | F-Offs. | Ampl. 2 | 15:13 | 0.184 |
| | | | | | Int. 4 | 15:16 | 0.282 |
| | | | | NPQ Curve | Ampl. 6 | 15:19 | — |
| | | | | | Int. 5 | 15:24 | — |