**Table S1: DOIs for the CTD data and additional sensors used on the CTDO system sorted by ship. See also https://doi.org/10.1594/PANGAEA.926065.**

| Cruise-id | DOI | Additional Sensors |
|---|---|---|
| M77/3 | https://doi.org/10.1594/PANGAEA.803110 | Dr. Haardt CHL-a fluorometer |
| M77/4 | https://doi.org/10.1594/PANGAEA.777907 | Dr. Haardt CHL-a fluorometer |
| M80/1 | https://doi.org/10.1594/PANGAEA.834424 | Dr. Haardt CHL-a fluorometer |
| M80/2 | https://doi.org/10.1594/PANGAEA.834442 | Dr. Haardt CHL-a fluorometer |
| M83/1 | https://doi..org10.1594/PANGAEA.834459 | Dr. Haardt CHL-a fluorometer |
| M90 | https://doi.org/10.1594/PANGAEA.830245 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR |
| M91 | https://doi.org/10.1594/PANGAEA.858090 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR |
| M92 | https://doi.org/10.1594/PANGAEA.858070 | Wetlabs CHL-a and CDOM fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, Surface PAR |
| M93 | https://doi.org/10.1594/PANGAEA.848017 | Wetlabs CHL-a and CDOM fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, Surface PAR |
| M96 | https://doi.org/10.1594/PANGAEA.860342 | Dr. Haardt CHL-a fluorometer |
| M97 | https://doi.org/10.1594/PANGAEA.860344 | Dr. Haardt CHL-a fluorometer |
| M105 | https://doi.org/10.1594/PANGAEA.858255 | Wetlabs CHL-a fluorometer, Wetlabs turbidity |
| M106 | https://doi.org/10.1594/PANGAEA.869361 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, Surface PAR |
| M107 | https://doi.org/10.1594/PANGAEA.860480 | Wetlabs CHL-a fluorometer, Wetlabs turbidity |
| M116/1 | https://doi.org/10.1594/PANGAEA.860481 | Wetlabs CHL-a fluorometer, Wetlabs turbidity |
| M119 | https://doi.org/10.1594/PANGAEA.860484 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, C-Star transmissometer |
| M130 | https://doi.org/10.1594/PANGAEA.904367 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, C-Star transmissometer, SUNA nitrate sensor |
| M135 | https://doi.org/10.1594/PANGAEA.904009 | Wetlabs CHL-a fluorometer, Wetlabs turbidity |
| M136 | https://doi.org/10.1594/PANGAEA.904013 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, SUNA nitrate sensor |
| M137 | https://doi.org/10.1594/PANGAEA.902643 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, SUNA nitrate sensor |
| M138 | https://doi.org/10.1594/PANGAEA.892575 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, SUNA nitrate sensor |
| M145 | https://doi.org/10.1594/PANGAEA.904382 | Wetlabs CHL-a fluorometer, Wetlabs turbidity, Biospherical/Licor PAR, SUNA nitrate sensor |
| MSM08/1 | https://doi.org/10.1594/PANGAEA.774702 | Dr. Haardt CHL-a fluorometer |
| MSM10/1 | https://doi.org/10.1594/PANGAEA.774713 | - |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.834580 | Dr. Haardt CHL-a fluorometer |

| | | |
|---|---|---|
| MSM18/3 | https://doi.org/10.1594/PANGAEA.783445 | Dr. Haardt CHL-a fluorometer |
| MSM22 | https://doi.org/10.1594/PANGAEA.834588 | Dr. Haardt CHL-a fluorometer |
| MMS23 | https://doi.org/10.1594/PANGAEA.842225 | Dr. Haardt CHL-a fluorometer |
| ATA_IFMGEOMAR_4 | https://doi.org/10.1594/PANGAEA.775387 | Dr. Haardt CHL-a fluorometer |
| SO243 | https://doi.org/10.1594/PANGAEA.861388 | Dr. Haardt CHL-a fluorometer |

**Table S2: DOIs for the LADCP data sorted by ship. See also https://doi.org/10.1594/PANGAEA.926517.**

| Cruise-id | DOI |
|---|---|
| M80/1 | https://doi.org/10.1594/PANGAEA.811718 |
| M83/1 | https://doi..org/10.1594PANGAEA.820828 |
| M96 | https://doi.org/10.1594/PANGAEA.905849 |
| M106 | https://doi.org/10.1594/PANGAEA.869634 |
| M119 | https://doi.org/10.1594/PANGAEA.877351 |
| M130 | https://doi.org/10.1594/PANGAEA.915871 |
| M145 | https://doi.org/10.1594/PANGAEA.915873 |
| MSM10/1 | https://doi.org/10.1594/PANGAEA.811719 |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.846777 |
| MSM22 | https://doi.org/10.1594/PANGAEA.846763 |
| MSM23 | https://doi.org/10.1594/PANGAEA.847231 |
| ATA_IFMGEOMAR_4 | https://doi.org/10.1594/PANGAEA.811565 |

**Table S3: DOIs for the moorings deployed during the SFB 754 together with their deployment time and location. See also https://doi.org/10.1594/PANGAEA.926545.**

| Mooring-id | DOI | Latitude | Longitude | Start | End |
|---|---|---|---|---|---|
| kpo_1005 | https://doi.org/10.1594/PANGAEA.904194<br>https://doi.org/10.1594/PANGAEA.843767 | 5° 9’ N | 23° W | 2006-06-18T00:00:00 | 2008-02-29T20:00:00 |
| kpo_1006 | https://doi.org/10.1594/PANGAEA.861222 | 17° 35.39’ N | 24° 15.12’ W | 2006-07-08T17:00:00 | 2008-02-19T08:00:00 |
| kpo_1023 | https://doi.org/10.1594/PANGAEA.843539<br>https://doi.org/10.1594/PANGAEA.843744 | 0° N | 23° 6.8’ W | 2008-03-01T20:20:00 | 2008-03-16T20:20:00 |
| kpo_1025 | https://doi.org/10.1594/PANGAEA.843540<br>https://doi.org/10.1594/PANGAEA.843745 | 2° 2.5’ N | 23° 2’ W | 2008-02-28T21:55:00 | 2009-11-01T12:55:00 |
| kpo_1026 | https://doi.org/10.1594/PANGAEA.924244 | 5° 0.9’ N | 23° 0.05’ W | 2008-02-27T18:30:00 | 2009-10-31T08:00:00 |
| kpo_1027 | https://doi.org/10.1594/PANGAEA.924245 | 8° 1’ N | 22° 59’ W | 2008-02-26T13:00:01 | 2009-11-17T17:30:01 |
| kpo_1028 | https://doi.org/10.1594/PANGAEA.861223 | 17° 36.4’ N | 24° 14.98’ W | 2008-03-14T12:30:00 | 2009-10-26T14:59:59 |
| kpo_1041 | https://doi.org/10.1594/PANGAEA.861224 | 17° 36.4’ N | 24° 14.98’ W | 2009-10-27T16:00:00 | 2011-05-11T14:30:00 |
| kpo_1044 | https://doi.org/10.1594/PANGAEA.843569<br>https://doi.org/10.1594/PANGAEA.843549<br>https://doi.org/10.1594/PANGAEA.843499 | 0° 0.16’ N | 23° 6.84’ W | 2009-11-05T20:00:00 | 2011-06-02T15:30:00 |
| kpo_1046 | https://doi.org/10.1594/PANGAEA.924248 | 2° 2.43’ N | 23° 1.93’ W | 2009-11-02T06:30:00 | 2011-06-05T10:40:00 |
| kpo_1047 | https://doi.org/10.1594/PANGAEA.904196 | 5° 0.9’ N | 23° W | 2009-10-31T20:00:00 | 2011-05-15T08:00:00 |
| kpo_1048 | https://doi.org/10.1594/PANGAEA.843497<br>https://doi.org/10.1594/PANGAEA.843555<br>https://doi.org/10.1594/PANGAEA.843731 | 8° 1.06’ N | 22° 58.99’ W | 2009-11-18T15:00:00 | 2011-05-14T06:00:00 |
| kpo_1060 | https://doi.org/10.1594/PANGAEA.861315 | 17° 36’ N | 24° 14’ W | 2011-06-18T23:00:00 | 2012-10-26T16:00:00 |
| kpo_1061 | https://doi.org/10.1594/PANGAEA.843601<br>https://doi.org/10.1594/PANGAEA.843855<br>https://doi.org/10.1594/PANGAEA.843496<br>https://doi.org/10.1594/PANGAEA.843917<br>https://doi.org/10.1594/PANGAEA.846032 | 8° 1’ N | 22° 58’ W | 2011-05-14T20:00:00 | 2012-10-28T13:00:00 |
| kpo_1062 | https://doi.org/10.1594/PANGAEA.904198 | 5° N | 23° W | 2011-05-13T16:00:00 | 2012-10-30T14:00:00 |
| kpo_1063 | https://doi.org/10.1594/PANGAEA.923604 | 0° 0.198’ N | 23° 6.6’ W | 2011-06-03T10:10:00 | 2012-11-05T07:50:00 |
| kpo_1089 | https://doi.org/10.1594/PANGAEA.923986 | 0° 0.198’ N | 23° 6.78’ W | 2012-11-06T10:30:00 | 2014-05-03T08:52:00 |
| kpo_1090 | https://doi.org/10.1594/PANGAEA.904202 | 5° 0.52’ N | 22° 59.87’ W | 2012-10-29T18:00:00 | 2014-04-29T17:10:06 |
| kpo_1091 | https://doi.org/10.1594/PANGAEA.876170 | 11° 2’ N | 21° 13’ W | 2012-10-27T13:20:00 | 2014-04-24T15:55:25 |
| kpo_1092 | https://doi.org/10.1594/PANGAEA.903843 | 4° 31.57’ N | 22° 25.29’ W | 2012-11-01T13:10:00 | 2014-04-30T10:01:04 |

| | | | | | |
|---|---|---|---|---|---|
| kpo_1093 | https://doi.org/10.1594/PANGAEA.903848 | 4° 36.42’ N | 23° 25.15’ W | 2012-10-29T16:00:00 | 2014-04-28T18:00:00 |
| kpo_1094 | https://doi.org/10.1594/PANGAEA.861316 | 17° 36’ N | 24° 14’ W | 2012-10-25T16:30:09 | 2014-04-19T18:00:00 |
| kpo_1125 | https://doi.org/10.1594/PANGAEA.908544 | 0° 0.19’ N | 23° 6.575’ W | 2014-04-26T17:59:00 | 2015-09-22T14:05:44 |
| kpo_1126 | https://doi.org/10.1594/PANGAEA.904203 | 5° 0.83’ N | 22° 59.28’ W | 2014-04-28T15:00:00 | 2015-09-18T20:36:39 |
| kpo_1127 | https://doi.org/10.1594/PANGAEA.876169 | 10° 56.53’ N | 21° 10.92’ W | 2014-04-25T09:52:00 | 2014-04-25T09:52:00 |
| kpo_1128 | https://doi.org/10.1594/PANGAEA.908822 | 17° 36.37’ N | 24° 17.565’ W | 2014-04-18T18:00:00 | 2015-09-10T17:59:35 |
| kpo_1140 | https://doi.org/10.1594/PANGAEA.924247 | 0° 0.2’ N | 23° 6.8’ W | 2015-09-19T20:00:00 | 2016-09-15T21:02:22 |
| kpo_1141 | https://doi.org/10.1594/PANGAEA.904025 | 5° 1.245’ N | 22° 59.9’ W | 2015-09-17T16:00:00 | 2016-09-11T15:11:48 |
| kpo_1142 | https://doi.org/10.1594/PANGAEA.924266<br>https://doi.org/10.1594/PANGAEA.924270 | 11° 2.22’ N | 21° 13.29’ W | 2015-09-13T21:00:00 | 2016-09-08T13:07:43 |
| kpo_1143 | https://doi.org/10.1594/PANGAEA.924249 | 17° 36.4’ N | 24° 14.98’ W | 2015-09-10T14:44:59 | 2016-08-30T09:28:04 |
| kpo_1176 | https://doi.org/10.1594/PANGAEA.904026 | 0° 0.803’ N | 23° 5.605’ W | 2016-09-12T20:00:00 | 2018-03-01T14:20:00 |
| kpo_1177 | https://doi.org/10.1594/PANGAEA.904028 | 5° 0.617’ N | 23° 0.27’ W | 2016-09-10T14:00:00 | 2018-02-26T18:20:21 |
| Stratus 13 | https://doi.org/10.1594/PANGAEA.892496<br>https://doi.org/10.1594/PANGAEA.892491<br>https://doi.org/10.1594/PANGAEA.892483<br>https://doi.org/10.1594/PANGAEA.892477 | 19° 37.5’ S | 84° 57’ W | 2014-03-07T20:24:00 | 2015-04-24T10:33:00 |

**Table S4: DOIs for autonomous glider data sorted by glider. See also https://doi.org/10.1594/PANGAEA.926547.**

| Deployment-id | Area | Time | DOI | Observed Parameters |
|---|---|---|---|---|
| ifm02_depl09 | Tropical Atlantic | 3/2008 | https://doi.org/10.1594/PANGAEA.920203 | CTD, Oxygen, CHL-a, Turbidity |
| ifm02_depl10 | Tropical Atlantic | 11/2009 | https://doi.org/10.1594/PANGAEA.920225 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl11 | Tropical Atlantic | 11/2009 | https://doi.org/10.1594/PANGAEA.920226 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl13 | Tropical Atlantic | 11/2010 | https://doi.org/10.1594/PANGAEA.920585 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl14 | Tropical Atlantic | 5/2011 | https://doi.org/10.1594/PANGAEA.920586 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl15 | Tropical Atlantic | 6/2011 | https://doi.org/10.1594/PANGAEA.920587 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl16 | Tropical Atlantic | 7/2011 | https://doi.org/10.1594/PANGAEA.920588 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl17 | Tropical Atlantic | 10/2012 | https://doi.org/10.1594/PANGAEA.876556 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl18 | Tropical Atlantic | 11/2012 | https://doi.org/10.1594/PANGAEA.876557 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl21 | Tropical Atlantic | 4/2014 | https://doi.org/10.1594/PANGAEA.920589 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm02_depl22 | Tropical Atlantic | 6/2014 | https://doi.org/10.1594/PANGAEA.877392 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm03_depl03 | Tropical Atlantic | 2/2008 | https://doi.org/10.1594/PANGAEA.920762 | CTD, Oxygen, CHL-a, Turbidity |
| ifm03_depl04 | Tropical Atlantic | 10/2008 | https://doi.org/10.1594/PANGAEA.920764 | CTD, Oxygen, CHL-a, Turbidity |
| ifm03_depl05 | Tropical Atlantic | 11/2009 | https://doi.org/10.1594/PANGAEA.920765 | CTD, Oxygen, CHL-a, Turbidity |
| ifm03_depl06 | Tropical Atlantic | 3/2010 | https://doi.org/10.1594/PANGAEA.920767 | CTD, Oxygen, CHL-a, Turbidity |
| ifm03_depl08 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892545 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm03_depl09 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.887703 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm03_depl10 | Tropical Atlantic | 3/2014 | https://doi.org/10.1594/PANGAEA.880144 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm03_depl11 | Tropical Atlantic | 6/2014 | https://doi.org/10.1594/PANGAEA.877389 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm03_depl14 | Tropical Pacific | 5/2017 | https://doi.org/10.1594/PANGAEA.920768 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm05_depl02 | Tropical Pacific | 1/2009 | Submitted to Pangaea | CTD, Oxygen, CHL-a, Turbidity |
| ifm05_depl06 | Tropical Atlantic | 10/2012 | https://doi.org/10.1594/PANGAEA.876558 | CTD, Oxygen, CHL-a, Turbidity |
| ifm05_depl08 | Tropical Atlantic | 6/2013 | https://doi.org/10.1594/PANGAEA.860768 | CTD, Oxygen, CHL-a, Turbidity |
| ifm06_depl01 | Tropical Atlantic | 3/2010 | https://doi.org/10.1594/PANGAEA.920775 | CTD, Oxygen, CHL-a, Turbidity |
| ifm06_depl02 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892546 | CTD, Oxygen, CHL-a, Turbidity |
| ifm07_depl02 | Tropical Atlantic | 3/2010 | https://doi.org/10.1594/PANGAEA.920776 | CTD, Oxygen, CHL-a, Turbidity |
| ifm07_depl06 | Tropical Atlantic | 6/2011 | Submitted to Pangaea | CTD, Oxygen, CHL-a, Turbidity |
| ifm07_depl07 | Tropical Atlantic | 7/2011 | https://doi.org/10.1594/PANGAEA.920777 | CTD, Oxygen, CHL-a, Turbidity |
| ifm07_depl08 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892548 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm07_depl09 | Tropical Atlantic | 6/2014 | https://doi.org/10.1594/PANGAEA.877390 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm07_depl10 | Tropical Pacific | 6/2017 | https://doi.org/10.1594/PANGAEA.920778 | CTD, Oxygen, CHL-a, Turbidity, CDOM |

| | | | | |
|---|---|---|---|---|
| ifm08_depl04 | Tropical Atlantic | 7/2011 | https://doi.org/10.1594/PANGAEA.920780 | CTD, Oxygen, CHL-a, Turbidity |
| ifm08_depl05 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892547 | CTD, Oxygen, CHL-a, Turbidity |
| ifm08_depl07 | Tropical Atlantic | 2/2018 | https://doi.org/10.1594/PANGAEA.920781 | CTD, Oxygen, CHL-a, Turbidity |
| ifm09_depl01 | Tropical Atlantic | 4/2011 | https://doi.org/10.1594/PANGAEA.920782 | CTD, Oxygen, CHL-a, Turbidity |
| ifm09_depl04 | Tropical Atlantic | 7/2011 | https://doi.org/10.1594/PANGAEA.920783 | CTD, Oxygen, CHL-a, Turbidity |
| ifm09_depl05 | Tropical Atlantic | 11/2012 | https://doi.org/10.1594/PANGAEA.876555 | CTD, Oxygen, CHL-a, Turbidity |
| ifm09_depl09 | Tropical Pacific | 4/2017 | https://doi.org/10.1594/PANGAEA.920784 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm09_depl10 | Tropical Pacific | 5/2017 | https://doi.org/10.1594/PANGAEA.920785 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm09_depl11 | Tropical Pacific | 6/2017 | https://doi.org/10.1594/PANGAEA.920786 | CTD, Oxygen, CHL-a, Turbidity, Turbulence Sensor |
| ifm10_depl01 | Tropical Atlantic | 3/2010 | https://doi.org/10.1594/PANGAEA.920789 | CTD, Oxygen, CHL-a, Turbidity |
| ifm10_depl03 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892544 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm11_depl01 | Tropical Atlantic | 3/2010 | https://doi.org/10.1594/PANGAEA.860774 | CTD, Oxygen, CHL-a, Turbidity |
| ifm11_depl02 | Tropical Atlantic | 10/2010 | https://doi.org/10.1594/PANGAEA.920790 | CTD, Oxygen, CHL-a, Turbidity |
| ifm11_depl03 | Tropical Atlantic | 7/2011 | https://doi.org/10.1594/PANGAEA.920791 | CTD, Oxygen, CHL-a, Turbidity |
| ifm11_depl04 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892550 | CTD, Oxygen, CHL-a, Turbidity |
| ifm11_depl05 | Tropical Atlantic | 3/2014 | https://doi.org/10.1594/PANGAEA.920792 | CTD, Oxygen, CHL-a, Turbidity |
| ifm12_depl01 | Tropical Pacific | 1/2013 | https://doi.org/10.1594/PANGAEA.892549 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm12_depl02 | Tropical Atlantic | 1/2014 | https://doi.org/10.1594/PANGAEA.860775 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm12_depl03 | Tropical Atlantic | 4/2014 | https://doi.org/10.1594/PANGAEA.920793 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm12_depl04 | Tropical Atlantic | 6/2014 | https://doi.org/10.1594/PANGAEA.877387 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm12_depl05 | Tropical Atlantic | 3/2015 | https://doi.org/10.1594/PANGAEA.904659 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm12_depl06 | Tropical Pacific | 4/2017 | https://doi.org/10.1594/PANGAEA.920787 | CTD, Oxygen, CHL-a, Turbidity, CDOM, Nitrate |
| ifm12_depl07 | Tropical Pacific | 4/2017 | https://doi.org/10.1594/PANGAEA.920788 | CTD, Oxygen, CHL-a, Turbidity, CDOM, Nitrate |
| ifm13_depl01 | Tropical Atlantic | 3/2014 | https://doi.org/10.1594/PANGAEA.860776 | CTD, Oxygen, CHL-a, Turbidity, Nitrate |
| ifm13_depl02 | Tropical Atlantic | 6/2014 | https://doi.org/10.1594/PANGAEA.877388 | CTD, Oxygen, CHL-a, Turbidity, Nitrate |
| ifm13_depl05 | Tropical Pacific | 5/2017 | Submitted to Pangaea | CTD, Oxygen, CHL-a, Turbidity, Nitrate |
| ifm14_depl01 | Tropical Atlantic | 6/2014 | https://doi.org/10.1594/PANGAEA.877391 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm14_depl03 | Tropical Atlantic | 2/2017 | https://doi.org/10.1594/PANGAEA.920794 | CTD, Oxygen, CHL-a, Turbidity, CDOM |
| ifm14_depl04 | Tropical Atlantic | 3/2017 | To be submitted | CTD, Oxygen, CHL-a, Turbidity, CDOM |

**Table S5: DOIs for Turbulence Measurements. See also https://doi.org/10.1594/PANGAEA.926518.**

| Cruise-id | DOI |
|---|---|
| MSM17/4 | https://doi.org/10.1594/PANGAEA.845923 |
| M92 | https://doi.org/10.1594/PANGAEA.858896 |
| MSM 23 | https://doi.org/10.1594/PANGAEA.858700 |
| M136 | https://doi.org/10.1594/PANGAEA.890121 |
| MSM10/1 | https://doi.org/10.1594/PANGAEA.819221 |
| M93 | https://doi.org/10.1594/PANGAEA.868400 |
| M80/2 | https://doi.org/10.1594/PANGAEA.819220 |
| ATA_IFMGEOMAR_4 | https://doi.org/10.1594/PANGAEA.823043 |
| MSM 22 | https://doi.org/10.1594/PANGAEA.846946 |
| M83/1 | https://doi.org/10.1594/PANGAEA.819235 |
| MSM08/1 | To be submitted |
| MSM18/3 | To be submitted |
| M80/1 | To be submitted |
| M91 | To be submitted |
| M97 | To be submitted |
| M106 | https://doi.org/10.1594/PANGAEA.920591 |
| M107 | https://doi.org/10.1594/PANGAEA.918861 |
| M119 | https://doi.org/10.1594/PANGAEA.920592 |
| M130 | https://doi.org/10.1594/PANGAEA.918280 |
| M135 | https://doi.org/10.1594/PANGAEA.918860 |
| M137 | To be submitted |
| M138 | To be submitted |

**Table S6: DOIs for the SADCP data (velocities and backscatter). See also https://doi.org/10.1594/PANGAEA.926521.**

| Cruise-id | DOI |
|---|---|
| M77/1 | https://doi.org/10.1594/PANGAEA.777978 |
| M77/2 | https://doi.org/10.1594/PANGAEA.778021 |
| M77/3 | https://doi.org/10.1594/PANGAEA.803110 |
| M77/4 | https://doi.org/10.1594/PANGAEA.803108 |
| M80/1 | https://doi.org/10.1594/PANGAEA.877364 |
| M80/2 | https://doi.org/10.1594/PANGAEA.819308 |
| M83/1 | https://doi.org/10.1594/PANGAEA.819310 |
| M90 | https://doi.org/10.1594/PANGAEA.861861 |
| M91 | To be submitted |
| M92 | https://doi.org/10.1594/PANGAEA.860717<br>https://doi.org/10.1594/PANGAEA.860718 |
| M93 | https://doi.org/10.1594/PANGAEA.860725<br>https://doi.org/10.1594/PANGAEA.860726 |
| M96 | https://doi.org/10.1594/PANGAEA.870638 |
| M97 | https://doi.org/10.1594/PANGAEA.870639 |
| M105 | https://doi.org/10.1594/PANGAEA.887130 |
| M106 | https://doi.org/10.1594/PANGAEA.901421<br>https://doi.org/10.1594/PANGAEA.887783 backscatter data |
| M107 | https://doi.org/10.1594/PANGAEA.897534 |
| M116/1 | https://doi.org/10.1594/PANGAEA.901423<br>https://doi.org/10.1594/PANGAEA.887784 |
| M119 | https://doi.org/10.1594/PANGAEA.877375<br>https://doi.org/10.1594/PANGAEA.887784 backscatter data |
| M130 | https://doi.org/10.1594/PANGAEA.904389 |
| M135 | https://doi.org/10.1594/PANGAEA.887131 |
| M136 | https://doi.org/10.1594/PANGAEA.901425 |
| M137 | https://doi.org/10.1594/PANGAEA.904281 |
| M138 | https://doi.org/10.1594/PANGAEA.887127 |
| M145 | https://doi.org/10.1594/PANGAEA.899170 |
| MSM08/1 | https://doi.org/10.1594/PANGAEA.777116<br>https://doi.org/10.1594/PANGAEA.777117 |
| MSM10/1 | https://doi.org/10.1594/PANGAEA.819279 |

| | |
|---|---|
| MSM17/4 | https://doi.org/10.1594/PANGAEA.911724 |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.877352 |
| MSM18/3 | https://doi.org/10.1594/PANGAEA.844007 |
| MSM22 | https://doi.org/10.1594/PANGAEA.841476<br>https://doi.org/10.1594/PANGAEA.882532 backscatter data |
| MSM23 | https://doi.org/10.1594/PANGAEA.911726 |
| ATA_IFMGEOMAR_4 | https://doi.org/10.1594/PANGAEA.877362 |
| SO243 | https://doi.org/10.1594/PANGAEA.864442<br>https://doi.org/10.1594/PANGAEA.864445<br>https://doi.org/10.1594/PANGAEA.864444<br>https://doi.org/10.1594/PANGAEA.864446 |

**Table S7: DOIs for the UCTD and Rapidcast data collected during SFB 754 cruises. See also https://doi.org/10.1594/PANGAEA.926529.**

| **Cruise-id** | **DOI** |
|---|---|
| M96 | https://doi.org/10.1594/PANGAEA.870642 |
| M97 | https://doi.org/10.1594/PANGAEA.869773 |
| M107 | https://doi.org/10.1594/PANGAEA.917456 |
| M116 | https://doi.org/10.1594/PANGAEA.907765 |
| M135 | https://doi.org/10.1594/PANGAEA.917462 |
| M136 | https://doi.org/10.1594/PANGAEA.904288 |
| M137 | https://doi.org/10.1594/PANGAEA.917464 |
| M138 | https://doi.org/10.1594/PANGAEA.917465 |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.916158 |

**Table S8: DOIs for Thermosalinograph data collected during SFB 754 cruises. See also https://doi.org/10.1594/PANGAEA.926530.**

| Cruise-id | DOI |
|---|---|
| M77/1 | https://doi.org/10.1594/PANGAEA.913872 |
| M77/2 | https://doi.org/10.1594/PANGAEA.913873 |
| M77/3 | https://doi.org/10.1594/PANGAEA.913874 |
| M77/4 | https://doi.org/10.1594/PANGAEA.913875 |
| M80/1 | https://doi.org/10.1594/PANGAEA.913881 |
| M80/2 | https://doi.org/10.1594/PANGAEA.913882 |
| M83/1 | https://doi.org/10.1594/PANGAEA.913883 |
| M90 | https://doi.org/10.1594/PANGAEA.913910 |
| M91 | https://doi.org/10.1594/PANGAEA.913911 |
| M92 | https://doi.org/10.1594/PANGAEA.913912 |
| M93 | https://doi.org/10.1594/PANGAEA.913927 |
| M96 | https://doi.org/10.1594/PANGAEA.869770 |
| M97 | https://doi.org/10.1594/PANGAEA.869771 |
| M98 | https://doi.org/10.1594/PANGAEA.869772 |
| M105 | https://doi.org/10.1594/PANGAEA.876429 |
| M106 | https://doi.org/10.1594/PANGAEA.913916 |
| M107 | https://doi.org/10.1594/PANGAEA.913918 |
| M116/1 | https://doi.org/10.1594/PANGAEA.907764 |
| M119 | https://doi.org/10.1594/PANGAEA.902332 |
| M130 | https://doi.org/10.1594/PANGAEA.913952 |
| M135 | https://doi.org/10.1594/PANGAEA.913953 |
| M136 | https://doi.org/10.1594/PANGAEA.913954 |
| M137 | https://doi.org/10.1594/PANGAEA.913955 |
| M138 | https://doi.org/10.1594/PANGAEA.913956 |
| M145 | https://doi.org/10.1594/PANGAEA.913957 |
| MSM08/1 | https://doi.org/10.1594/PANGAEA.913856 |
| MSM10/1 | https://doi.org/10.1594/PANGAEA.913857 |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.843080 |
| MSM18/3 | https://doi.org/10.1594/PANGAEA.843082 |
| MSM 22 | https://doi.org/10.1594/PANGAEA.913977 |
| MSM 23 | https://doi.org/10.1594/PANGAEA.913979 |
| ATA_IFMGEOMAR_4 | https://doi.org/10.1594/PANGAEA.913855 |
| SON_243 | https://doi.org/10.1594/PANGAEA.913858 |

**Table S9: Deployments of oxygen-sensor equipped Argo floats. See also https://doi.org/10.1594/PANGAEA.926544.**

| WMO-id | DOI | Deployment Date | Deployment Latitude | Deployment Longitude |
|---|---|---|---|---|
| 6900627 | https://doi.org/10.17882/42182 | 2008-02-06 | 16° 9.71’ N | 18° 0.11’ W |
| 6900631 | https://doi.org/10.17882/42182 | 2008-02-13 | 19° 59.37’ N | 18° 0.23’ W |
| 6900632 | https://doi.org/10.17882/42182 | 2008-02-16 | 17 ° 59.91’ N | 17° 0.0’ W |
| 6900628 | https://doi.org/10.17882/42182 | 2008-02-17 | 19° 0.01’ N | 18° 0.10‘ W |
| 6900630 | https://doi.org/10.17882/42182 | 2008-02-19 | 24° 20.23’ N | 17° 30.15’ W |
| 6900524 | https://doi.org/10.17882/42182 | 2008-04-24 | 8° 03.90' N | 22° 58.65' W |
| 6900525 | https://doi.org/10.17882/42182 | 2008-04-26 | 8° 10.79' N | 22°50.98' W |
| 6900629 | https://doi.org/10.17882/42182 | 2008-04-26 | 08° 10.84' N | 22°50.96' W |
| 3901075 | https://doi.org/10.17882/42182 | 2009-02-02 | 9° 59.99' S | 85° 50.00' W |
| 3901076 | https://doi.org/10.17882/42182 | 2009-02-02 | 10° 0.05' S | 85° 49.94' W |
| 3901077 | https://doi.org/10.17882/42182 | 2009-02-03 | 8° 0.01' S | 85° 49.99' W |
| 3901078 | https://doi.org/10.17882/42182 | 2009-02-03 | 8° 0.09' S | 85° 49.96' W |
| 3901079 | https://doi.org/10.17882/42182 | 2009-02-09 | 6° 0.01' S | 85° 50.00' W |
| 3901080 | https://doi.org/10.17882/42182 | 2009-02-09 | 6° 0.03' S | 85° 49.98' W |
| 3901081 | https://doi.org/10.17882/42182 | 2009-02-10 | 4° 0.10' S | 85° 50.03' W |
| 3901082 | https://doi.org/10.17882/42182 | 2009-02-10 | 4° 0.10' S | 85° 50.03' W |
| 3901083 | https://doi.org/10.17882/42182 | 2009-02-11 | 2° 0.16' S | 85° 50.02' W |
| 3901084 | https://doi.org/10.17882/42182 | 2009-02-11 | 2° 0.21' S | 85° 50.03' W |
| 6900868 | https://doi.org/10.17882/42182 | 2011-04-02 | 19° 34.20’ S | 75° 34.80’ W |
| 6900872 | https://doi.org/10.17882/42182 | 2011-04-02 | 19° 34.20’ S | 75° 31.20’ W |
| 6900869 | https://doi.org/10.17882/42182 | 2011-04-02 | 19° 45.00’ S | 76° 29.40’ W |
| 6900873 | https://doi.org/10.17882/42182 | 2011-04-02 | 19° 46.80’ S | 76° 28.40’ W |
| 6900870 | https://doi.org/10.17882/42182 | 2011-04-02 | 19° 45.00’ S | 77° 0.60’ W |
| 6900874 | https://doi.org/10.17882/42182 | 2011-04-02 | 19° 45.00’ S | 77° 0.60’ W |
| 6900871 | https://doi.org/10.17882/42182 | 2011-04-10 | 19° 40.80’ S | 85° 40.80’ W |
| 6900875 | https://doi.org/10.17882/42182 | 2011-04-11 | 19° 40.80’ S | 85° 40.80’ W |
| 6900526 | https://doi.org/10.17882/42182 | 2014-03-11 | 19° 36.02’ S | 84° 58.19’ W |
| 6900527 | https://doi.org/10.1594/PANGAEA.892458 | 2014-03-11 | 19° 36.02’ S | 84° 58.19’ W |
| 6900532 | https://doi.org/10.1594/PANGAEA.892467 | 2014-03-13 | 18° 58.95’ S | 76° 59.46’ W |
| 6900529 | https://doi.org/10.1594/PANGAEA.892462 | 2014-03-12 | 19° 27.32’ S | 83° 01.48’ W |
| 6900530 | https://doi.org/10.1594/PANGAEA.892466 | 2014-03-12 | 19° 15.54’ S | 80° 30.36’ W |
| 6900528 | https://doi.org/10.17882/42182 | 2014-03-11 | 19° 27.32’ S | 83° 01.48’ W |
| 6900531 | https://doi.org/10.17882/42182 | 2014-03-12 | 19° 15.54’ S | 80° 30.36’ W |

**Table S10: DOIs for hydrochemical measurements from water samples. See also https://doi.org/10.1594/PANGAEA.926609.**

| Cruise-id | DOI | Nutrients | Tracers | TON | DIC and AT | other |
|---|---|---|---|---|---|---|
| M77/3 | https://doi.org/10.1594/PANGAEA.801925 | • | | | | • |
| | https://doi.org/10.1594/PANGAEA.806268 | • | | | | • |
| | https://doi.org/10.1594/PANGAEA.793154 | • | | | | • |
| | https://doi.org/10.1594/PANGAEA.843322 | | | | | N2O |
| M77/4 | https://doi.org/10.1594/PANGAEA.793153 | • | | | | • |
| | https://doi.org/10.1594/PANGAEA.843450 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.843428 | | | | | • |
| | https://doi.org/10.1594/PANGAEA.806262 | • | | | | • |
| M80/1 | https://doi.org/10.3334/cdiac/otg.clivar_mt80_1_2009 | • | • | | • | |
| M80/2 | https://doi.org/10.1594/PANGAEA.808287 | • | • | | | • |
| | https://doi.org/10.1594.PANGAEA.821923 | | | | | • |
| | https://doi.org/10.1594/PANGAEA.843370 | | | | | N2O |
| M83/1 | https://doi.org/10.1594/PANGAEA.821729 | • | • | | | • |
| M90 | https://doi.org/10.1594/PANGAEA.857751 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.894194 | | | | | • |
| | https://doi.org/10.1594/PANGAEA.908007 | | | | | • |
| | https://doi.org/10.1594/PANGAEA.894195 | | | | | • |
| | https://doi.org/10.1594/PANGAEA.857760 | | | | | N2O |
| M91 | https://doi.org/10.1594/PANGAEA.904304 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.817174 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.908006 | | | | | • |
| M92 | https://doi.org/10.1594/PANGAEA.862046 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.860382 | | | | | N2O |
| M93 | https://doi.org/10.1594/PANGAEA.862055 | • | | | | • |
| | https://doi.org/10.1594/PANGAEA.860387 | | | | | N2O |
| M96 | https://doi.org/10.1594/PANGAEA.854028 | • | | | | |
| M97 | https://doi.org/10.1594/PANGAEA.863119 | • | • | | | • |
| M105 | https://doi.org/10.1594/PANGAEA.864810 | • | • | | | • |
| M106 | https://doi.org/10.1594/PANGAEA.934435 | • | | • | | |
| M107 | https://doi.org/10.1594/PANGAEA.885109 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.896321 | | | | | • |
| M116/1 | https://doi.org/10.1594/PANGAEA.886191 | • | • | | • | |

| | | | | | | |
|---|---|---|---|---|---|---|
| M119 | https://doi.org/10.1594/PANGAEA.934450 | • | | • | | |
| M130 | https://doi.org/10.1594/PANGAEA.913986 | • | • | • | | |
| M135 | https://doi.org/10.1594/PANGAEA.890441 | • | • | | | |
| M136 | https://doi.org/10.1594/PANGAEA.904404 | • | | | | |
| M137 | https://doi.org/10.1594/PANGAEA.904405 | • | | | | |
| M138 | https://doi.org/10.1594/PANGAEA.914948 | | | | | N2O |
| M145 | https://doi.org/10.1594/PANGAEA.934461 | • | | • | | |
| MSM08/1 | https://doi.org/10.1594/PANGAEA.774842 | • | | | | |
| MSM10/1 | https://doi.org/10.1594/PANGAEA.775074 | • | • | | | • |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.843373 | • | | | | |
| | https://doi.org/10.1594/PANGAEA.900984 | | | | | N2O |
| MSM18/3 | https://doi.org/10.1594/PANGAEA.843374 | • | | | | |
| MSM22 | https://doi.org/10.1594/PANGAEA.842498 | • | | | | |
| MMS23 | https://doi.org/10.1594/PANGAEA.842187 | | • | | • | |
| ATA_IFMGEOMAR_4 | https://doi.org/10.1594/PANGAEA.793119 | • | | | | |
| SO243 | https://doi.org/10.1594/PANGAEA.861391 | • | | | | |

**Table S11: DOIs for stable isotope measurements. See also https://doi.org/10.1594/PANGAEA.926610.**

| Cruise-id | Isotope | DOI | References | Contact |
|---|---|---|---|---|
| M77/3 | Seawater $d^{15}NO_3/d^{15}NO_2$<br>Seawater $d^{30}Si$ | https://doi.org/10.1594/PANGAEA.801925<br>https://doi.org/10.1594/PANGAEA.819966 | Altabet et al.(2012), Ryabenko et al.(2012),<br>Grasse et al. (2013) | Ryabenko |
| M77/4 | Seawater $d^{15}NO_3/d^{15}NO_2$<br>Seawater $d^{30}Si$ | https://doi.org/10.1594/PANGAEA.793153<br>https://doi.org/10.1594/PANGAEA.819966 | Ryabenko et al. (2012),<br>Grasse et al. (2016) | Ryabenko<br>Grasse |
| M90 | Seawater $d^{15}NO_3/d^{15}NO_2$ | https://doi.org/10.1594/PANGAEA.927728 | Bourbonnais et al. (2015, 2017) | Altabet |
| M91 | Seawater $d^{15}NO_3/d^{15}NO_2$ | https://doi.org/10.1594/PANGAEA.927732 | Hu et al. (2016),<br>Bourbonnais et al. (2015) | Altabet |
| M92 | Seawater $d^{15}NO_3/d^{15}NO_2$ | https://doi.org/10.1594/PANGAEA.927737 | Bourbonnais et al., (2017) | Altabet |
| M93 | Seawater $d^{30}Si$ | https://doi.org/10.1594/PANGAEA.905552 | | |
| M83/1 | Zooplankton $d^{15}NO_3/d^{15}NO_2$ | https://doi.org/10.1594/PANGAEA.821908 | Hauss et al. (2013) | |
| MSM22 | Zooplankton $d^{15}NO_3/d^{15}NO_2$ | https://doi.org/10.1594/PANGAEA.842500 | Sandel et al. (2015) | |

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**Table S12: DOIs for radiogenic isotope measurements. See also https://doi.org/10.1594/PANGAEA.926610.**

| Cruise-id | Isotope | DOI | References | Contact |
|---|---|---|---|---|
| M77/3 | Seawater Nd isotopes | https://doi.org/10.1594/PANGAEA.806270 | Grasse et al. (2012) | Grasse |
| M77/4 | Seawater Nd Isotopes | https://doi.org/10.1594/PANGAEA.806270 | Grasse et al. (2012) | Grasse |
| M90 | Seawater Nd Isotopes<br>REEs | https://doi.org/10.1594/PANGAEA.894196 | Grasse et al. (2017) | Grasse |

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Grasse, P., Bosse, L., Hathorne, E. C., Böning, P., Pahnke, K., and Frank, M.: Short-term variability of dissolved rare earth elements and neodymium isotopes in the entire water column of the Panama Basin, Earth Planet. Sci. Lett., 475, 242-253, doi:10.1016/j.epsl.2017.07.022, 2017.

**Table S13: DOIs for the underway trace gases data. See also https://doi.org/10.1594/PANGAEA.926611.**

| Cruise-id | DOIs | Setup |
|---|---|---|
| M90 | https://doi.org/10.1594/PANGAEA.900988<br>https://doi.org/10.1594/PANGAEA.900990 | Arévalo-Martínez et al. (2013) |
| M91 | https://doi.org/10.1594/PANGAEA.900996<br>https://doi.org/10.1594/PANGAEA.900995 | Arévalo-Martínez et al. (2013) |
| M93 | https://doi.org/10.1594/PANGAEA.901008<br>https://doi.org/10.1594/PANGAEA.901007 | Arévalo-Martínez et al. (2013) |
| M135 | To be submitted | |
| M136 | To be submitted | Arévalo-Martínez et al. (2019) |
| M137 | To be submitted | Arévalo-Martínez et al. (2019) |
| M138 | To be submitted | Arévalo-Martínez et al. (2019) |
| MSM18/2 | https://doi.org/10.1594/PANGAEA.894112<br>https://doi.org/10.1594/PANGAEA.894111 | Arévalo-Martínez et al. (2013) |
| MSM18/3 | https://doi.org/10.1594/PANGAEA.894792<br>https://doi.org/10.1594/PANGAEA.894793 | Arévalo-Martínez et al. (2013) |

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**Table S14: DOIs for trace chemical data. See also https://doi.org/10.1594/PANGAEA.928126.**

| **Cruise-id** | **Parameters targeted** | **DOI** | **Related publications** |
|---|---|---|---|
| M77/1 | Fe(II), $H_2O_2$ | https://doi.org/10.1594/PANGAEA.907432 | Croot et al. (2019) |
| M77/3 | Aerosols, dTMs, Cd-L, Zn-L, Fe(II), $H_2O_2$, Cd isotopes | https://doi.org/10.1594/PANGAEA.898031<br>https://doi.org/10.1594/PANGAEA.900713 | Schlosser et al. (2018)<br>Xie et al. (2019) |
| M80/2 | dTMs, Co-L | https://doi.org/10.1594/PANGAEA.808440<br>https://doi.org/10.1594/PANGAEA.836145 | Baars and Croot (2015) |
| M83/1 | Superoxide/ROS, Mn(III), dTMs, $H_2O_2$, Fe(II), Cu-L | https://doi.org/10.1594/PANGAEA.823279 | Wuttig et al. (2013a, 2013b) |
| M92 | dTMs, Fe(II) | https://doi.org/10.1594/PANGAEA.867609 | Scholz et al. (2016) |
| M107 | dTMs, TdTMs, iodine | https://doi.org/10.1594/PANGAEA.907160 | Rapp et al. (2019) |
| SO243 | dTMs, TdTMs, iodine, Fe(II), $H_2O_2$ | https://doi.org/10.1594/PANGAEA.913798 | Hopwood et al. (2017<br>Rapp et al. (2020) |
| M135 | dTMs, labile/total particulates, $H_2O_2$ | https://doi.org/10.1594/PANGAEA.928117 | |
| M136 | dTMs, Fe(II), Fe-L, aerosols, Cd isotopes | https://doi.org/10.1594/PANGAEA.928118 | |
| M137 | dTMs, aerosols, Cd isotopes, Fe isotopes | https://doi.org/10.1594/PANGAEA.928121 | |
| M138 | dTMs, Cd isotopes, Fe isotopes | https://doi.org/10.1594/PANGAEA.928122 | |

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**Table S15: DOIs for Particulate Organic Matter and Pigment Analysis. See also https://doi.org/10.1594/PANGAEA.926612.**

| **Cruise-id** | **Method** | **DOI** |
|---|---|---|
| MSM17/4 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.843436 |
| M77/3 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.821980 |
| | pump-CTD | https://doi.org/10.1594/PANGAEA.843414 |
| M80/2 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.821923 |
| M83/1 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.819953 |
| M105 | Sediment trap | https://doi.org/10.1594/PANGAEA.874317 |
| | Sediment trap | https://doi.org/10.1594/PANGAEA.874316 |
| | Sediment trap | https://doi.org/10.1594/PANGAEA.874318 |
| | Sediment trap | https://doi.org/10.1594/PANGAEA.874315 |
| | Sediment trap | https://doi.org/10.1594/PANGAEA.874267 |
| | Sediment trap | https://doi.org/10.1594/PANGAEA.874267 |

**Table S16: DOIs for Dissolved Organic Matter, Cell Abundance, Extracellular Enzyme Rates, and Bacterial Production. See also https://doi.org/10.1594/PANGAEA.926780.**

| Cruise-id | Method | DOI |
|---|---|---|
| M91 | Sea-surface microlayer | https://doi.org/10.1594/PANGAEA.859853 |
| | Sea-surface microlayer | https://doi.org/10.1594/PANGAEA.861947 |
| M93 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.900924 |
| | pump-CTD | https://doi.org/10.1594/PANGAEA.900928 |
| M107 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.896321 |
| M136 | BIGO | https://doi.org/10.1594/PANGAEA.913476 |
| M136 and M137 | Multicorer | https://doi.org/10.1594/PANGAEA.913477 |
| M136 and M138 | Discrete water sampling | https://doi.org/10.1594/PANGAEA.891247 |
| | | https://doi.org/10.1594/PANGAEA.922796 |
| CV12 | Mesocosm | https://doi.org/10.1594/PANGAEA.847693 |

**Table S17: DOIs for nitrogen and carbon fixation and N-cycle gene abundance. See also https://doi.org/10.1594/PANGAEA.926781.**

| Cruise-id | Method | DOI |
|---|---|---|
| M77/3 | $N_2$ / C fixation, gene abundance | https://doi.org/10.1594/PANGAEA.833791<br>https://doi.org/10.1594/PANGAEA.833788<br>https://doi.org/10.1594/PANGAEA.833789<br>https://doi.org/10.1594/PANGAEA.816158 |
| M77/4 | $N_2$ / C fixation, gene abundance | https://doi.org/10.1594/PANGAEA.816158<br>https://doi.org/10.1594/PANGAEA.833790 |
| M80/2 | $N_2$ / C fixation, gene abundance | https://doi.org/10.1594/PANGAEA.843370 |
| M83/1 | $N_2$ / C fixation, gene abundance | https://doi.org/10.1594/PANGAEA.843371 |
| M90, M91, M93 | $N_2$ / C fixation, gene abundance | https://doi.org/10.1594/PANGAEA.860733<br>https://doi.org/10.1594/PANGAEA.884928 |
| M97 | $N_2$ / C fixation, gene abundance | https://doi.org/10.1594/PANGAEA.883657 |
| M105 | C fixation | https://doi.org/10.5194/bg-12-7467-2015 |

**Table S18: DOIs for Microbial Oxygen Consumption and Nitrogen Loss Processes. See also https://doi.org/10.1594/PANGAEA.926785.**

| **Cruise-id** | **Process** | **DOI** |
|---|---|---|
| M77/3 | N loss and $O_2$ consumption | https://doi.org/10.1594/PANGAEA.843457<br>https://doi.org/10.1594/PANGAEA.843459<br>https://doi.org/10.1594/PANGAEA.843461<br>https://doi.org/10.1594/PANGAEA.833791<br>https://doi.org/10.1594/PANGAEA.843414 |
| M77/4 | N loss and $O_2$ consumption | https://doi.org/10.1594/PANGAEA.833790<br>https://doi.org/10.1594/PANGAEA.843460 |
| M90 | N loss and $O_2$ consumption | https://doi.org/10.1594/PANGAEA.870514 |
| M93 | N loss and $O_2$ consumption | https://doi.org/10.1594/PANGAEA.884928<br>https://doi.org/10.1594/PANGAEA.894324 |

**Table S19: Metagenomics including NCBI accession numbers and MG-Rast accession numbers (*). Data has been submitted to https://www.ncbi.nlm.nih.gov.**

| **Cruise-id** | **Metagenomes** | **Metatranscriptomes** | **16S rDNA or nifH amplicon sequencing** | **Sanger sequencing of N cycle key genes or 16S rDNA** |
|---|---|---|---|---|
| ATA_IFMGEOMAR_4 | | | | JF796145–JF796179 |
| M77/3 | SUB910041, SUB910044, SUB910045, SUB910046, 4460677.3*, 4450892.3*, 4450891.3*, 4460736.3*, 4461588.3*, 4460676.3* | 4452038.3*, 4460734.3*, 4452039.3*, 4452042.3*, 4460735.3*, 4460734.3*, 4452043.3* | | KU899562–KU899704 |
| M90 | SRP064135 | | | KX090448–KX090515 |
| M91 | SRP064135 | | | |
| M92 | | | SRP072293 | KU312264–KU312267<br>KU899867–KU899990<br>KU302519–KU302594 |
| M93 | SRP064135 | | | |
| M107 | SRS1482538,<br>SRS1482539 | | PRJNA288724<br>SUB3036872 | |

**Table S20: DOIs for Multinet Zooplankton Distribution. See also https://doi.org/10.1594/PANGAEA.926794**

| **Cruise-id** | **Location** | **DOI** |
|---|---|---|
| MSM22, M97, M105 | CVOO | https://doi.org/10.1594/PANGAEA.858321 |

**Table S21: DOIs for UVP5 (Zooplankton and Particle Distribution). See also https://doi.org/10.1594/PANGAEA.927040 and https://doi.org/10.1594/PANGAEA.924375.**

| Cruise-id | Method | DOI |
|---|---|---|
| M92 | UVP5 Particles | https://doi.org/10.1594/PANGAEA.885756 |
| M96 | UVP5 Particles + Zooplankton | https://doi.org/10.1594/PANGAEA.846153 |
| M106 | UVP5 Particles | https://doi.org/10.1594/PANGAEA.874870 |
| M107 | UVP5 Particles | https://doi.org/10.1594/PANGAEA.885759 |
| M119 | UVP5 Particles | https://doi.org/10.1594/PANGAEA.874872 |
| MSM22 | UVP5 Particles | https://doi.org/10.1594/PANGAEA.874871<br>https://doi.org/10.1594/PANGAEA.842405<br>https://doi.org/10.1594/PANGAEA.858321 |
| MSM23 | UVP5 Particles | https://doi.org/10.1594/PANGAEA.846229 |
| MSM22, M97,M105, M106 | UVP5 Particles + Zooplankton | https://doi.org/10.1594/PANGAEA.858322 |

Please note that UVP5 particle data has undergone further quality controls and was merged with data from other international collaborators to yield a global dataset. This dataset, to be found at https://doi.org/10.1594/PANGAEA.924375 supersedes the here mentioned UVP5 particle datasets and should be used for further research, whereas the original datasets are still available for reference.

**Table S22: DOIs for Zooplankton Respiration and Ammonium Excretion. See also https://doi.org/10.1594/PANGAEA.927041.**

| Cruise-id/Location | Species | DOI |
|---|---|---|
| M93 | *Pleuroncodes monodon* | https://doi.org/10.1594/PANGAEA.847805<br>https://doi.org/10.1594/PANGAEA.847788<br>https://doi.org/10.1594/PANGAEA.847789 |
| MSM22, M97, M93 | Euphausiids and copepods | https://doi.org/10.1594/PANGAEA.853919<br>https://doi.org/10.1594/PANGAEA.853912<br>https://doi.org/10.1594/PANGAEA.853916 |
| Cape Verde | Copepods | https://doi.org/10.1594/PANGAEA.816158 |

**Table S23: DOIs for Nutrient amendment experiments. See also https://doi.org/10.1594/PANGAEA.927042.**

| **Cruise-id/Location** | **Method** | **DOI** |
|---|---|---|
| M77/3 | Shipboard mesocosm (75 L) | https://doi.org/10.1594/PANGAEA.823278<br>https://doi.org/10.1594/PANGAEA.821880 |
| M80/2 | Shipboard mesocosm (150 L) | https://doi.org/10.1594/PANGAEA.821968<br>https://doi.org/10.1594/PANGAEA.821888 |
| M83/1 | Shipboard mesocosm (150 L) | https://doi.org/10.1594/PANGAEA.821882<br>https://doi.org/10.1594/PANGAEA.821880 |
| M116 | Bottle incubation | https://doi.org/10.1594/PANGAEA.907393<br>https://doi.org/10.1594/PANGAEA.907394 |
| Cape Verde Mesocosms 2012 | Mesocosm (150L) | https://doi.org/10.1594/PANGAEA.855440<br>https://doi.org/10.1594/PANGAEA.855441<br>https://doi.org/10.1594/PANGAEA.855442 |
| KOSMOS 2017 | Large-scale mesocosm (54 m3) | https://doi.org/10.1594/PANGAEA.923395 |

**Table S24: Position, water depth and recovery of the long gravity cores (LGC) and piston cores (PC) retrieved during the SFB 754. See alo https://doi.org/10.1594/PANGAEA.927043.**

| Cruise-id | Event label | Alternative label | Gear | Latitude | Longitude | Water Depth (m) | Recovery (cm) | References |
|---|---|---|---|---|---|---|---|---|
| M77/1 | M77/1_413 | M77/1_413 | LGC | 17° 47.078' S | 72° 4.423' W | 2168 | 295 | |
| M77/1 | M77/1_414 | M77/1_414 | LGC | 17° 38.606’ S | 71° 58.382’ W | 928 | 94 | |
| M77/1 | M77/1_415 | M77/1_415 | LGC | 17° 34.391' S | 71° 56.199’ W | 793 | 110 | |
| M77/1 | M77/1_416 | M77/1_416 | LGC | 17° 28.135' S | 71° 52.621’ W | 505 | 388 | Erdem et al. (2016); Erdem and Schönfeld (2017) |
| M77/1 | M77/1_417 | M77/1_417 | LGC | 17° 26.026' S | 71° 51.718' W | 329 | 575 | |
| M77/1 | M77/1_418 | M77/1_418 | LGC | 17° 25.98' S | 71° 51.82' W | 339 | 313 | |
| M77/1 | M77/1_422 | M77/1_422 | LGC | 15° 11.42' S | 75° 34.86' W | 517 | 333 | Erdem et al. (2016) |
| M77/1 | M77/1_493 | M77/1_493 | LGC | 11° 00.01' S | 78° 44.81' W | 2025 | 323 | |
| M77/1 | M77/1_494 | M77/1_494 | LGC | 11° 0.01' S | 78° 44.81' W | 2024 | 352 | |
| M77/1 | M77/1_495 | M77/1_495 | LGC | 11° 0.01' S | 78° 34.39' W | 1194 | 85 | |
| M77/1 | M77/1_496 | M77/1_496 | LGC | 11° 0.01' S | 78° 34.38' W | 1197 | 70 | |
| M77/1 | M77/1_497 | M77/1_497 | LGC | 11° 0.01' S | 78° 30.05' W | 930 | 371 | |
| M77/1 | M77/1_502 | M77/1_502 | LGC | 11° S | 78° 30.05' W | 930 | 178 | |
| M77/1 | M77/1_503 | M77/1_503 | LGC | 11° S | 78° 25.65' W | 698 | 437 | |
| M77/1 | M77/1_504 | M77/1_504 | LGC | 11° 0.01' S | 78° 25.65' W | 700 | 422 | |
| M77/1 | M77/1_505 | M77/1_505 | LGC | 11° 0.004' S | 78° 25.652' W | 699 | 441 | |
| M77/1 | M77/1_506 | M77/1_506 | LGC | 11° S | 78° 21.13' W | 523 | 566 | |
| M77/1 | M77/1_507 | M77/1_507 | LGC | 11° 0.01' S | 78° 21.13' W | 522 | 476 | |
| M77/1 | M77/1_508 | M77/1_508 | LGC | 11° 0.03' S | 78°14.19' W | 379 | 220 | |
| M77/1 | M77/1_509 | M77/1_509 | LGC | 11° 0.04' S | 78° 14.17' W | 397 | 64 | |
| M77/1 | M77/1_510 | M77/1_510 | LGC | 11° 0.023' S | 78° 13.314' W | 365 | | |
| M77/1 | M77/1_511 | M77/1_511 | LGC | 11° 0.05' S | 77° 56.61' W | 146 | 324 | |
| M77/1 | M77/1_512 | M77/1_512 | LGC | 11° 0.05' S | 77° 56.61' W | 144 | 559 | |
| M77/2 | M77/2_002-6 | M77/2_002-6 | PC | 15° 4.75’S | 75° 44.00’ W | 285 | 1248 | |
| M77/2 | M77/2_003-2 | M77/2_003-2 | PC | 15° 6.21' S | 75° 41.28’W | 271 | 1497 | Fleury et al. (2015a); Fleury et al. (2015b); Larsen et al. (2015); Schönfeld et al. (2015); Erdem et al. (2016); |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Doering et al. (2016a, 2016b); Mollier et al. (2019); Salvatteci et al. (2019) |
| M77/2 | M77/2_005-1 | M77/2_005-1 | PC | 12° 5.64' S | 77° 39.91’ W | 209 | 1474 | |
| M77/2 | M77/2_005-3 | M77/2_005-3 | PC | 12° 5.66' S | 77° 40.07’ W | 214 | 1336 | Fleury et al. (2015b); Salvatteci et al. (2019) |
| M77/2 | M77/2_022-1 | M77/2_022-1 | PC | 10° 53.22' S | 78° 46.38' W | 1929 | 97 | |
| M77/2 | M77/2_024-5 | M77/2_024-5 | PC | 11° 5.01' S | 78° 0.91' W | 210 | 1492 | Scholz et al. (2014a); Fleury et al. (2015b); Scholz et al. (2017) |
| M77/2 | M77/2_026-1 | M77/2_026-1 | PC | 10° 45.13' S | 78° 28.43' W | 425 | 1129 | |
| M77/2 | M77/2_028-3 | M77/2_028-3 | PC | 9° 17.69' S | 79° 53.86' W | 1104 | 1096 | |
| M77/2 | M77/2_029-1 | M77/2_029-1 | PC | 9° 17.70' S | 79° 37.11' W | 444 | 1490 | |
| M77/2 | M77/2_029-3 | M77/2_029-3 | PC | 9° 17.70' S | 79° 37.11' W | 433 | 1354 | Schönfeld et al. (2015); Erdem et al. (2016); Doering et al. (2016b); Mollier et al. (2019); Salvatteci et al. (2019) |
| M77/2 | M77/2_045-4 | M77/2_045-4 | PC | 7° 59.99' S | 80° 20.51' W | 359 | 1280 | |
| M77/2 | M77/2_047-2 | M77/2_047-2 | PC | 7° 52.01' S | 80° 31.36' W | 626 | 1305 | Erdem et al. (2016); Erdem and Schönfeld (2017); Erdem et al. (2020) |
| M77/2 | M77/2_050-4 | M77/2_050-4 | PC | 8° 1.01' S | 80° 30.10' W | 1013 | 1776 | Schönfeld et al. (2015); Erdem et al. (2016); Erdem and Schönfeld (2017); Erdem et al. (2020) |
| M77/2 | M77/2_052-2 | M77/2_052-2 | PC | 5° 29.01' S | 81° 27.00' W | 1249 | 1307 | Schönfeld et al. (2015); Erdem et al. (2016); Doering et al. (2016b); Erdem and Schönfeld (2017); Glock et al. (2018); Erdem et al. (2020) |
| M77/2 | M77/2_053-2 | M77/2_053-2 | PC | 5° 29.02' S | 81° 43.00' W | 2591 | 1239 | |
| M77/2 | M77/2_054-1 | M77/2_054-1 | PC | 5° 29.00' S | 81° 18.35' W | 299 | 1215 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| M77/2 | M77/2_056-3 | M77/2_056-3 | PC | 3° 44.99' S | 81° 7.25' W | 350 | 1101 | |
| M77/2 | M77/2_056-5 | M77/2_056-5 | PC | 3° 44.99' S | 81° 7.48' W | 355 | 1061 | Mollier et al. (2013);<br>Nürnberg et al. (2015);<br>Seillès et al. (2015);<br>Erdem et al. (2016);<br>Mollier et al. (2019) |
| M77/2 | M77/2_059-1 | M77/2_059-1 | PC | 3° 57.01' S | 81° 19.23' W | 997 | 1359 | Mollier et al. (2013);<br>Nürnberg et al. (2015);<br>Erdem et al. (2016);<br>Erdem and Schönfeld (2017);<br>Erdem et al. (2020);<br>Mollier et al. (2019) |
| M77/2 | M77/2_060-3 | M77/2_060-3 | PC | 3° 50.98' S | 81° 15.50' W | 699 | 1426 | |
| M77/2 | M77/2_062-1 | M77/2_062-1 | PC | 2° 29.98' S | 81° 14.72' W | 1675 | 1227 | |
| M77/2 | M77/2_064-3 | M77/2_064-3 | PC | 1° 53.49' S | 81° 11.76' W | 523 | 1116 | |
| M77/2 | M77/2_065-1 | M77/2_065-1 | PC | 1° 57.01' S | 81° 7.23' W | 204 | 424 | |
| M77/2 | M77/2_067-4 | M77/2_067-4 | PC | 1° 45.18' S | 82° 37.50' W | 2080 | 1179 | |
| M77/2 | M77/2_069-1 | M77/2_069-1 | PC | 3° 16.00' S | 80° 56.86' W | 338 | 780 | |
| M77/2 | M77/2_072-3 | M77/2_072-3 | PC | 2° 49.00' S | 81° 0.53' W | 425 | 1283 | |
| M77/2 | M77/2_075-1 | M77/2_075-1 | PC | 0° 13.00' N | 80° 39.44' W | 1316 | 1032 | |
| M77/2 | M77/2_076-4 | M77/2_076-4 | PC | 0° 5.45' N | 80° 33.40' W | 291 | 396 | |
| M92 | ME920/254-1 | 254 GC 3 | LGC | 12° 27.191' S | 77° 29.490' W | 407 | 206 | (i) Porewater geochemistry<br>https://doi.org/10.1594/PANGAEA.867651<br>(ii) Particulate geochemistry<br>Maltby et al. (2016)<br>Sommer et al. (2014) |
| M92 | ME920/255-1 | 255 GC 4 | LGC | 10° 59.995' S | 78° 0.914' W | 118 | 561 | (i) Porewater geochem.istry<br>https://doi.org/10.1594/PANGAEA.867652<br>(ii) Particulate geochemistry<br>https://doi.org/10.1594/PANGAEA.867686 |
| M92 | M920/263-1 | 263 GC 6 | LGC | 10° 59.998' S | 78° 12.605' W | 361 | 287 | (i) Porewater geochemistry<br>https://doi.org/10.1594/PANG |

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|---|---|---|---|---|---|---|---|---|
| | | | | | | | | AEA.867653<br>(ii) Particulate geochemistry<br>https://doi.org/10.1594/PANGAEA.867687 |
| M92 | M920/265-1 | 265 GC 7 | LGC | 10° 59.989' S | 78° 38.011' W | 1485 | 418 | (i) Porewater geochemistry<br>https://doi.org/10.1594/PANGAEA.867654<br>(ii) Particulate geochemistry<br>https://doi.org/10.1594/PANGAEA.867688 |
| M92 | ME920/268-1 | 268 GC 8 | LGC | 12° 14.500' S | 77° 9.611' W | 78 | 400 | (i) Porewater geochemistry<br>https://doi.org/10.1594/PANGAEA.922469<br>(ii) Particulate geochemistry<br>https://doi.org/10.1594/PANGAEA.922476<br>Maltby et al. (2016) |
| M135 | M1350/219-3 | M135-001-3 | LGC | 18° 47.394' S | 70° 51.387' W | 1412 | 583 | |
| M135 | M1350/249-3 | M135-002-3 | LGC | 17° 29.05' S | 71° 43.088' W | 466 | 420 | |
| M135 | M1350/249-4 | M135-002-4 | LGC | 17° 29.054' S | 71° 43.090' W | 465 | 429 | |
| M135 | M1350/250-3 | M135-003-3 | LGC | 17° 28.963' S | 71° 41.012' W | 470 | 561 | |
| M135 | M1350/252-3 | M135-004-3 | LGC | 17° 24.598' S | 71° 44.416' W | 229 | 746 | Salvatteci et al. (2019) |
| M135 | M1350/254-3 | M135-005-3 | LGC | 17° 25.228' S | 71° 46.139' W | 197 | 916 | Salvatteci et al. (2019) |

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**Table S25: DOIs for the age models and sedimentation rates of sediment cores. See also https://doi.org/10.1594/PANGAEA.927046.**

| Cruise-id | Description | DOI | References |
|---|---|---|---|
| M77/1 | Age model and sedimentation rate of sediment core M77/1_449-1 | https://doi.org/10.1594/PANGAEA.866927 | Ehlert et al. (2016) |
| M77/1 | Age model and sedimentation rate of sediment core M77/1_470-1 | https://doi.org/10.1594/PANGAEA.866930 | Ehlert et al. (2016) |
| M77/1 | Age model and sedimentation rate of sediment core M77/1_549-1 | https://doi.org/10.1594/PANGAEA.866931 | Ehlert et al. (2016) |
| M77/2 | Age model and sedimentation rate of sediment core M77/2_029-3 | https://doi.org/10.1594/PANGAEA.877425 | Doering et al. (2016) |
| M77/2 | Age model and sedimentation rate of sediment core M77/2_052-2 | https://doi.org/10.1594/PANGAEA.877426 | Doering et al. (2016) |
| M77/1 | Age models for sediment cores M77/1-470-MUC29, M77/1-449-MUC19 and M77/1-459-MUC53 from the Peruvian shelf at 11° S | https://doi.org/10.1594/PANGAEA.866932 | Ehlert et al. (2016) |
| M77/1 | Age model of sediment core M77/1_416 | https://doi.org/10.1594/PANGAEA.902614 | Erdem et al. (2020) |
| M77/2 | Age model of sediment core M77/2_047-2 | https://doi.org/10.1594/PANGAEA.902615 | Erdem et al. (2016; 2020) |
| M77/2 | Age model of sediment core M77/2_050-4 | https://doi.org/10.1594/PANGAEA.902616 | Erdem et al. (2016; 2020) |

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**Table S26: DOIs for downcore X-Ray Fluorescence (XRF) measurements on sediment cores. See also https://doi.org/10.1594/PANGAEA.927047.**

| Cruise-id | Description | DOI | References |
|---|---|---|---|
| | XRF core scanning data from Core LB1 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912478 | Beil et al. (2020) |
| | XRF core scanning data from Core LB3 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912479 | Beil et al. (2020) |
| | XRF core scanning data from Cores LB1 and LB3 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912681 | Beil et al. (2020) |
| M77/2 | XRF-scanned elemental concentrations from sediment cores off Peru | https://doi.org/10.1594/PANGAEA.824573 | Mollier-Vogel et al. (2013) |
| M77/2 | XRF-scanned Ti, Fe and Ca of piston core M77/2_056-5 | https://doi.org/10.1594/PANGAEA.824571 | Mollier-Vogel et al. (2013) |
| M77/2 | XRF-scanned Ti, Fe and Ca of piston core M77/2_059-1 | https://doi.org/10.1594/PANGAEA.824572 | Mollier-Vogel et al. (2013) |
| M77/1 | XRF measurements on sediment core M77/1_397-1 | https://doi.org/10.1594/PANGAEA.885171 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_406-1 | https://doi.org/10.1594/PANGAEA.885174 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_421-1 | https://doi.org/10.1594/PANGAEA.885175 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_445-1 | https://doi.org/10.1594/PANGAEA.885176 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_455-1 | https://doi.org/10.1594/PANGAEA.885177 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_460-1 | https://doi.org/10.1594/PANGAEA.885178 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_462-1 | https://doi.org/10.1594/PANGAEA.885179 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_464 | https://doi.org/10.1594/PANGAEA.885180 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_470-1 | https://doi.org/10.1594/PANGAEA.885181 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_474 | https://doi.org/10.1594/PANGAEA.885182 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_481-1 | https://doi.org/10.1594/PANGAEA.885183 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_487-1 | https://doi.org/10.1594/PANGAEA.885184 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_516-1 | https://doi.org/10.1594/PANGAEA.885185 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_519-1 | https://doi.org/10.1594/PANGAEA.885186 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_526 | https://doi.org/10.1594/PANGAEA.885187 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_535 | https://doi.org/10.1594/PANGAEA.885188 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_543-1 | https://doi.org/10.1594/PANGAEA.885189 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_549-1 | https://doi.org/10.1594/PANGAEA.885190 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_553-1 | https://doi.org/10.1594/PANGAEA.885191 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_564-1 | https://doi.org/10.1594/PANGAEA.885193 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_573-1 | https://doi.org/10.1594/PANGAEA.885194 | Pfannkuche et al. (2011) |

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|---|---|---|---|
| M77/1 | XRF measurements on sediment core M77/1_584-1 | https://doi.org/10.1594/PANGAEA.885195 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_586 | https://doi.org/10.1594/PANGAEA.885196 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_601-1 | https://doi.org/10.1594/PANGAEA.885197 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_607-1 | https://doi.org/10.1594/PANGAEA.885198 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_610-1 | https://doi.org/10.1594/PANGAEA.885199 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_614-1 | https://doi.org/10.1594/PANGAEA.885200 | Pfannkuche et al. (2011) |
| M77/1 | XRF measurements on sediment core M77/1_619-1 | https://doi.org/10.1594/PANGAEA.885201 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_009 | https://doi.org/10.1594/PANGAEA.885219 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_013 | https://doi.org/10.1594/PANGAEA.885220 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_022-3 | https://doi.org/10.1594/PANGAEA.885221 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_025 | https://doi.org/10.1594/PANGAEA.885222 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_026-3 | https://doi.org/10.1594/PANGAEA.885223 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_028-2 | https://doi.org/10.1594/PANGAEA.885225 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_029-4 | https://doi.org/10.1594/PANGAEA.885226 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_031-2 | https://doi.org/10.1594/PANGAEA.885227 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_045-2 | https://doi.org/10.1594/PANGAEA.885228 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_047-3 | https://doi.org/10.1594/PANGAEA.885229 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_048 | https://doi.org/10.1594/PANGAEA.885230 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_050-1 | https://doi.org/10.1594/PANGAEA.885231 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_052-3 | https://doi.org/10.1594/PANGAEA.885232 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_053-1 | https://doi.org/10.1594/PANGAEA.885233 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_054-2 | https://doi.org/10.1594/PANGAEA.885234 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_056-2 | https://doi.org/10.1594/PANGAEA.885235 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_059-2 | https://doi.org/10.1594/PANGAEA.885236 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_060-1 | https://doi.org/10.1594/PANGAEA.885237 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_062-2 | https://doi.org/10.1594/PANGAEA.885238 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_064-2 | https://doi.org/10.1594/PANGAEA.885239 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_067-2 | https://doi.org/10.1594/PANGAEA.885240 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_069-2 | https://doi.org/10.1594/PANGAEA.885241 | Pfannkuche et al. (2011) |
| M77/2 | XRF measurements on sediment core M77/2_072-1 | https://doi.org/10.1594/PANGAEA.885243 | Pfannkuche et al. (2011) |
| M135 | XRF measurements on sediment core M135_252-3 | https://doi.org/10.1594/PANGAEA.897238 | Salvatteci et al. (2019) |

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**Table S27: DOIs of downcore proxy records. See also https://doi.org/10.1594/PANGAEA.927048.**

| Description | DOI | References |
|---|---|---|
| New insights into Cenomanian paleoceanography and climate evolution from the Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.889137 | Beil et al. (2018) |
| Elemental raw data, analysed with XRF core scanner on core SN4 in Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.889143 | Beil et al. (2018) |
| Geochemical analysis of core SN4 in Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.889133 | Beil et al. (2018) |
| Natural Gamma Ray of core SN4 in Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.889136 | Beil et al. (2018) |
| Stable isotope analysis (bulk carbonate) of core SN4 in Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.889134 | Beil et al. (2018) |
| Stable isotope analysis (organic material) of core SN4 in Tarfaya Basin, southern Morocco. | https://doi.org/10.1594/PANGAEA.889135 | Beil et al. (2018) |
| Cretaceous Oceanic Anoxic Events prolonged by phosphorus cycle feedbacks, data from SN4 and La Bedoule | https://doi.org/10.1594/PANGAEA.912375 | Beil et al. (2020) |
| Stable isotope analysis (bulk carbonate) of core SN4 in Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.912278 | Kuhnt et al. (2017) |
| Stable isotope analysis (organic material) of core SN4 in Tarfaya Basin, southern Morocco | https://doi.org/10.1594/PANGAEA.912279 | Kuhnt et al. (2017) |
| Borehole log derived Natural Gamma Ray (NGR) data from Core LB3 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912372 | Beil et al. (2020) |
| Borehole log derived Natural Gamma Ray (NGR) data from Cores LB1 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912369 | Beil et al. (2020) |
| Borehole log derived Natural Gamma Ray (NGR) data from Cores LB1 and LB3 (spliced) (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912480 | Beil et al. (2020) |
| Phosphorus concentration and speciation data of core SN4 (Tarfaya Basin) | https://doi.org/10.1594/PANGAEA.912277 | Beil et al. (2020) |
| Stable isotope data (bulk carbonates) from Core LB1 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912378 | Beil et al. (2020) |
| Stable isotope data (bulk carbonates) from Core LB3 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912377 | Beil et al. (2020) |
| Stable isotope data (bulk carbonates) from Cores LB1 and LB3 (La Bedoule, southern France) | https://doi.org/10.1594/PANGAEA.912379 | Beil et al. (2020) |
| Diatom assemblage of core M77/2_003-2 | https://doi.org/10.1594/PANGAEA.927604 | Doering et al (2016a) |
| Stable Silicon Isotopes data, biogenic opal concentrations and bulk sediment nitrogen isotope data of Trigger cores M772-024, 005 and 003 off Peru | https://doi.org/10.1594/PANGAEA.901858 | Doering et al. (2019) |
| 14C and age models for cores M772-052 and M772-029; diatom assemblages and biogenic opal and organic carbon data | https://doi.org/10.1594/PANGAEA.877432 | Doering et al (2016b) |

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| Concentrations of biogenic opal and organic carbon of sediment core M77/2_029-3 | https://doi.org/10.1594/PANGAEA.877427 | Doering et al (2016b) |
| Downcore records of the diatom assemblage counts from the small-mixed diatom fraction (11-32 µm) of sediment core M77/2_003-2 | https://doi.org/10.1594/PANGAEA.877428 | Doering et al. (2016a) |
| Downcore records of the diatom assemblage counts from the small-mixed diatom fraction (11-32 µm) of sediment core M77/2_029-3 | https://doi.org/10.1594/PANGAEA.877590 | Doering et al. (2016a) |
| Downcore records of the diatom assemblage counts from the small-mixed diatom fraction (11-32 µm) of sediment core M77/2_052-2 | https://doi.org/10.1594/PANGAEA.877430 | Doering et al. (2016b) |
| Downcore records of the diatom assemblage counts from the small-mixed diatom fraction (11-32 µm) of sediment core SO147_106KL | https://doi.org/10.1594/PANGAEA.877431 | Doering et al. (2016b) |
| Peruvian Margin living benthic foraminiferal distributions in percentage | https://doi.org/10.1594/PANGAEA.901840 | Erdem et al. (2020) |
| Downcore data for sediment core M77/2_52-2 | https://doi.org/10.1594/PANGAEA.900467 | Glock et al. (2018) |
| Stable isotopes, Mg/Ca ratios and sea surface temperatures on foraminifera from sediment cores off equatorial Peru during the last ~17kyr | https://doi.org/10.1594/PANGAEA.848849 | Nürnberg et al. (2015) |
| Stable isotopes, Mg/Ca ratios and sea surface temperatures on planktonic and benthic foraminifera of sediment core M77/2_056-5 | https://doi.org/10.1594/PANGAEA.848847 | Nürnberg et al. (2015) |
| Stable isotopes, Mg/Ca ratios and sea surface temperatures on planktonic and benthic foraminifera of sediment core M77/2_059-1 | https://doi.org/10.1594/PANGAEA.848848 | Nürnberg et al. (2015) |
| Fish scale deposition rates and export production from 1860 to 2005 AD off Peru | https://doi.org/10.1594/PANGAEA.888404 | Salvatteci et al. (2018) |
| Deglacial to Holocene Ocean Temperatures in the Humboldt Current System as Indicated by Alkenone Paleothermometry | https://doi.org/10.1594/PANGAEA.897239 | Salvatteci et al. (2019b) |
| Age, TOC and deposition rates measured on cores B04 and B05 off Peru | https://doi.org/10.1594/PANGAEA.888398 | Salvatteci et al. (2018) |
| Alkenone derived SST from sediment core M135_252-3 (M135-004-3) | https://doi.org/10.1594/PANGAEA.897236 | Salvatteci et al. (2019b) |
| Alkenone derived SST from sediment core M135_254-3 (M135-005-3) | https://doi.org/10.1594/PANGAEA.897237 | Salvatteci et al. (2019b) |
| Alkenone derived SST from sediment core M77/2_003-2 | https://doi.org/10.1594/PANGAEA.897232 | Salvatteci et al. (2019b) |
| Alkenone derived SST from sediment core M77/2_005-3 | https://doi.org/10.1594/PANGAEA.897233 | Salvatteci et al. (2019b) |
| Alkenone derived SST from sediment core M77/2_024-5 | https://doi.org/10.1594/PANGAEA.897234 | Salvatteci et al. (2019b) |
| Alkenone derived SST from sediment core M77/2_029-3 | https://doi.org/10.1594/PANGAEA.897235 | Salvatteci et al. (2019b) |
| Anchovy and sardine scaled depostion rates in the Humboldt Current System off Peru during the last 150 years | https://doi.org/10.1594/PANGAEA.888402 | Salvatteci et al. (2018) |
| Fish debris in the Humboldt Current for the last 25 kyr | https://doi.org/10.1594/PANGAEA.917873 | Salvatteci et al. (2019a) |
| Fish debris in the Humboldt Current for the last 25 kyr: Fish debris concentrations and fluxes of unidentified vertebrae | https://doi.org/10.1594/PANGAEA.917869 | Salvatteci et al. (2019a) |
| Fish debris in the Humboldt Current for the last 25 kyr | https://doi.org/10.1594/PANGAEA.917871 | Salvatteci et al. (2019a) |

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| Fish debris in the Humboldt Current for the last 25 kyr: Proxies for environmental conditions and fish debris preservation | https://doi.org/10.1594/PANGAEA.917867 | Salvatteci et al. (2019a) |
| Fish debris in the Humboldt Current for the last 25 kyr: Time series of the main 3 principal components | https://doi.org/10.1594/PANGAEA.917872 | Salvatteci et al. (2019a) |
| Redox sensitive metals, d15N, hydrogen index and TOC measured on a composite record (B14-G10-G14) off Peru covering the last 25 kyr | https://doi.org/10.1594/PANGAEA.887109 | Salvatteci et al. (2016) |
| SST gradients in the Humboldt Current System off Peru during the last 150 years | https://doi.org/10.1594/PANGAEA.888401 | Salvatteci et al. (2018) |
| Nitrogen isotope, total organic carbon and element concentration data for piston core M77/2-024-5 from the Peruvian continental margin | https://doi.org/10.1594/PANGAEA.830777 | Scholz et al. (2014a) |
| Iron speciation measured on core Tarfaya SN4 | https://doi.org/10.1594/PANGAEA.906319 | Scholz et al. (2019) |
| Nitrogen isotope and element concentration data for core Tarfaya SN4 | https://doi.org/10.1594/PANGAEA.906318 | Scholz et al. (2019) |
| Nitrogen isotope and element concentration data for piston core M77/2-024-5 from the Peruvian continental margin | https://doi.org/10.1594/PANGAEA.830775 | Scholz et al. (2014a) |
| Proxy records for iron, sulfur and nitrogen cycling in the Tarfaya upwelling system. | https://doi.org/10.1594/PANGAEA.906320 | Scholz et al. (2019) |
| The sedimentary fingerprint of an open-marine iron shuttle | https://doi.org/10.1594/PANGAEA.831730 | Scholz et al. (2014b) |
| Total organic carbon data for piston core M77/2-024-5 from the Peruvian continental margin | https://doi.org/10.1594/PANGAEA.830776 | Scholz et al. (2014a) |
| Records of past mid-depth ventilation: Cretaceous ocean anoxic event 2 vs. recent oxygen minimum zones. | https://doi.org/10.1594/PANGAEA.844808 | Schönfeld et al. (2015) |
| Accumulation rates of Site S13 (SW Morocco) | https://doi.org/10.1594/PANGAEA.844807 | Schönfeld et al. (2015) |

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**Table S28: DOIs for core-top calibrations of paleo-proxies. See also https://doi.org/10.1594/PANGAEA.927049.**

| Cruise-id | Description | DOI | References |
|---|---|---|---|
| M77/1 | Nitrogen and carbon concentrations and isotopic ratios off Peru and Ecuador surface sediments | https://doi.org/10.1594/PANGAEA.801886<br>https://doi.org/10.1594/PANGAEA.801889<br>https://doi.org/10.1594/PANGAEA.801890 | Mollier-Vogel et al. (2012) |
| M77/2 | Nitrogen and carbon concentrations and isotopic ratios off Peru and Ecuador surface sediments | https://doi.org/10.1594/PANGAEA.801886<br>https://doi.org/10.1594/PANGAEA.801889<br>https://doi.org/10.1594/PANGAEA.801890 | Mollier-Vogel et al. (2012) |
| M77/1 | Mn/Ca and Fe/Ca ratios of benthic foraminifera from the Peruvian OMZ from core-top samples (Q-ICP-MS and SIMS data) | https://doi.org/10.1594/PANGAEA.807234<br>https://doi.org/10.1594/PANGAEA.807235<br>https://doi.org/10.1594/PANGAEA.807236<br>https://doi.org/10.1594/PANGAEA.807237<br>https://doi.org/10.1594/PANGAEA.807238<br>https://doi.org/10.1594/PANGAEA.816157 | Glock et al. (2012) |
| M77/1 | I/Ca ratios in benthic foraminifera from the Peruvian OMZ from core top samples (Q-ICP-MS data) | https://doi.org/10.1594/PANGAEA.919740 | Glock et al. (2014) |
| M77/2 | I/Ca ratios in benthic foraminifera from the Peruvian OMZ from core top samples (Q-ICP-MS data) | https://doi.org/10.1594/PANGAEA.919740 | Glock et al. (2014) |
| M77/1 | I/Ca ratios in benthic foraminifera from the Peruvian OMZ from core top samples (SIMS data) | https://doi.org/10.1594/PANGAEA.919742 | Glock et al. (2016) |
| M77/2 | I/Ca ratios in benthic foraminifera from the Peruvian OMZ from core top samples (SIMS data) | https://doi.org/10.1594/PANGAEA.919742 | Glock et al. (2016) |
| M77/1 | I/Ca ratios in benthic foraminifera from the Peruvian OMZ from core top samples (NanoSIMS data) | https://doi.org/10.1594/PANGAEA.919761 | Glock et al. (2019a) |
| M77/1 | Abundances of living foraminifera | https://doi.org/10.1594/PANGAEA.757092<br>https://doi.org/10.1594/PANGAEA.901840 | Mallon et al. (2011)<br>Glock et al. (2013; 2019b)<br>Erdem et al. (2020) |
| M77/2 | Abundances of living foraminifera | https://doi.org/10.1594/PANGAEA.757092<br>https://doi.org/10.1594/PANGAEA.901840 | Mallon et al. (2011)<br>Glock et al. (2013; 2019b)<br>Erdem et al. (2020) |
| M137 | Abundances of living foraminifera | https://doi.org/10.1594/PANGAEA.901840 | Erdem et al. (2020) |
| SO241 | Elemental and Mo isotope data (solid phase) of multicorer samples from the Guaymas Basin (Gulf of California; SONNE) | https://doi.org/10.1594/PANGAEA.911064<br>https://doi.org/10.1594/PANGAEA.911074 | Eroglu et al. (2020) |

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**Table 29: DOIs for benthic fluxes and surface sediments from M77. See also https://doi.org/10.1594/PANGAEA.928199.**

Station labelling for BIGOs: #/#: The first number is the station number of the lander deployment, the second is the recovery number. Either of these could have been used in PANGAEA or in published papers. Use of the deployment number is preferred. Related publications are listed in the footnote.

| Cruise-id | Event label | Analysis | DOI |
|---|---|---|---|
| **Benthic Landers (BIGO)** | | | |
| M77-1 | 451/464 BIGO 1 K1 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923314<br>(ii) https://doi.org/10.1594/PANGAEA.923277<br>(iii) https://doi.org/10.1594/PANGAEA.923344<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 451/464 BIGO 1 K2 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923315<br>(ii) https://doi.org/10.1594/PANGAEA.923278<br>(iii) https://doi.org/10.1594/PANGAEA.923344<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 474/489 BIGO 2 K1 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923317<br>(ii) https://doi.org/10.1594/PANGAEA.923279<br>(iii) https://doi.org/10.1594/PANGAEA.923345<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 474/489 BIGO 2 K2 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923318<br>(ii) https://doi.org/10.1594/PANGAEA.923280<br>(iii) https://doi.org/10.1594/PANGAEA.923345<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 526/535 BIGO 3 K2 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923319<br>(ii) https://doi.org/10.1594/PANGAEA.923281<br>(iii) https://doi.org/10.1594/PANGAEA.923346<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 544/557 BIGO T3K1 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923320<br>(ii) https://doi.org/10.1594/PANGAEA.923283<br>(iii) https://doi.org/10.1594/PANGAEA.923347<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 566/576 BIGO T4 K1 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923321<br>(ii) https://doi.org/10.1594/PANGAEA.923284<br>(iii) https://doi.org/10.1594/PANGAEA.923348 |

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|---|---|---|---|
| | | (iv) Opal ($SiO_2$) | (iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 568/577 BIGO 5 K1 | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal | (i) https://doi.org/10.1594/PANGAEA.923322<br>(ii)https://doi.org/10.1594/PANGAEA.923285<br>(iii) https://doi.org/10.1594/PANGAEA.923349<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 568/577 BIGO 5 K2 | (i) Porewater geochemistry<br>(ii) Benthic fluxes/syringes<br>(iii) Opal ($SiO_2$) | (i)https://doi.org/10.1594/PANGAEA.923286<br>(ii) https://doi.org/10.1594/PANGAEA.923349<br>(iii) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 586/598 BIGO T5 ** | (i) Particulate geochemistry<br>(ii) Porewater geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.923323<br>(ii) https://doi.org/10.1594/PANGAEA.923551<br>(iii) https://doi.org/10.1594/PANGAEA.923350<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-2 | 007/013 BIGO 6 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.909496<br>(ii) https://doi.org/10.1594/PANGAEA.909554<br>(iii) https://doi.org/10.1594/PANGAEA.909603 |
| M77-2 | 010/016 BIGO T6 ** | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.909497<br>(ii) https://doi.org/10.1594/PANGAEA.909555<br>(iii) https://doi.org/10.1594/PANGAEA.909608<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-2 | 021/025 BIGO 7 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.909557<br>(ii) https://doi.org/10.1594/PANGAEA.909499<br>(iii) https://doi.org/10.1594/PANGAEA.909609 |
| **Multiple-corer (MUC)** | | | |
| M77-1 | 397 MUC 2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817851<br>(ii) https://doi.org/10.1594/PANGAEA.817851 |
| M77-1 | 406 MUC 6 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817875<br>(ii) https://doi.org/10.1594/PANGAEA.817875 |
| M77-1 | 421 MUC 13 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817881<br>(ii) https://doi.org/10.1594/PANGAEA.817881 |
| M77-1 | 445 MUC 15 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817882<br>(ii) https://doi.org/10.1594/PANGAEA.817882<br>(iii) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 449 MUC 19 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817883<br>(ii) https://doi.org/10.1594/PANGAEA.817883 |

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|---|---|---|---|
| | | (iii) Excess $^{210}Pb$<br>(iv) Opal ($SiO_2$) | (iii) https://doi.org/10.1594/PANGAEA.922650<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 455 MUC 21 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817884<br>(ii) https://doi.org/10.1594/PANGAEA.817884<br>(iii) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 459 MUC 25 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817885 -<br>(ii) https://doi.org/10.1594/PANGAEA.817885 -<br>(iii) https://doi.org/10.1594/PANGAEA.922650<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 470 MUC 29 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817887<br>(ii) https://doi.org/10.1594/PANGAEA.817887<br>(iii) https://doi.org/10.1594/PANGAEA.922650<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 481 MUC 33 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817891<br>(ii) https://doi.org/10.1594/PANGAEA.817891<br>(iii) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 487 MUC 38[***] | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817892<br>(ii) https://doi.org/10.1594/PANGAEA.817892<br>(iii) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 488 MUC 39 | (i) Excess $^{210}Pb$ | (i) https://doi.org/10.1594/PANGAEA.922650 |
| M77-1 | 516 MUC 40 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817896<br>(ii) https://doi.org/10.1594/PANGAEA.817896<br>(iii) https://doi.org/10.1594/PANGAEA.922650<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 519 MUC 43 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817897<br>(ii) https://doi.org/10.1594/PANGAEA.817897<br>(iii) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 543 MUC 52 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$<br>(iv) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.817900<br>(ii) https://doi.org/10.1594/PANGAEA.817900<br>(iii) https://doi.org/10.1594/PANGAEA.922650<br>(iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 549 MUC 53 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$ | (i) https://doi.org/10.1594/PANGAEA.817901<br>(ii) https://doi.org/10.1594/PANGAEA.817901<br>(iii) https://doi.org/10.1594/PANGAEA.922650 |

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| | | (iv) Opal ($SiO_2$) | (iv) https://doi.org/10.1594/PANGAEA.922645 |
| M77-1 | 553 MUC 54 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817902<br>(ii) https://doi.org/10.1594/PANGAEA.817902 |
| M77-1 | 564 MUC 59 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817903<br>(ii) https://doi.org/10.1594/PANGAEA.817903 |
| M77-1 | 573 MUC 61 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817906<br>(ii) https://doi.org/10.1594/PANGAEA.817906 |
| M77-1 | 584 MUC 66 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817907<br>(ii) https://doi.org/10.1594/PANGAEA.817907 |
| M77-1 | 601 MUC 71 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817909<br>(ii) https://doi.org/10.1594/PANGAEA.817909 |
| M77-1 | 607 MUC 75 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817910<br>(ii) https://doi.org/10.1594/PANGAEA.817910 |
| M77-1 | 610 MUC 77 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817911<br>(ii) https://doi.org/10.1594/PANGAEA.817911 |
| M77-1 | 614 MUC 79 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817912<br>(ii) https://doi.org/10.1594/PANGAEA.817912 |
| M77-1 | 619 MUC 83 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.817913<br>(ii) https://doi.org/10.1594/PANGAEA.817913 |
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| M77-2 | 002-4 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909522<br>(ii) https://doi.org/10.1594/PANGAEA.909553 |
| M77-2 | 005-4 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909526<br>(ii) https://doi.org/10.1594/PANGAEA.909552 |
| M77-2 | 022-3 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909498<br>(ii) https://doi.org/10.1594/PANGAEA.922654 |
| M77-2 | 026-3 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909532<br>(ii) https://doi.org/10.1594/PANGAEA.909558 |
| M77-2 | 028-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909501<br>(ii) https://doi.org/10.1594/PANGAEA.909559 |
| M77-2 | 029-4 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909502<br>(ii) https://doi.org/10.1594/PANGAEA.909560 |
| M77-2 | 031-2 MUC | (i) Porewater geochemistry | (i) https://doi.org/10.1594/PANGAEA.909503 |

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| | | (ii) Particulate geochemistry | (ii) https://doi.org/10.1594/PANGAEA.909561 |
| M77-2 | 045-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909505<br>(ii) https://doi.org/10.1594/PANGAEA.909562 |
| M77-2 | 047-3 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909494<br>(ii) https://doi.org/10.1594/PANGAEA.909563 |
| M77-2 | 050-1 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909507<br>(ii) https://doi.org/10.1594/PANGAEA.909565 |
| M77-2 | 052-3 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909508<br>(ii) https://doi.org/10.1594/PANGAEA.909566 |
| M77-2 | 053-1 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909509<br>(ii) https://doi.org/10.1594/PANGAEA.909567 |
| M77-2 | 054-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909510<br>(ii) https://doi.org/10.1594/PANGAEA.909568 |
| M77-2 | 056-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909511<br>(ii) https://doi.org/10.1594/PANGAEA.909569 |
| M77-2 | 059-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909512<br>(ii) https://doi.org/10.1594/PANGAEA.909570 |
| M77-2 | 060-1 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909513<br>(ii) https://doi.org/10.1594/PANGAEA.909571 |
| M77-2 | 062-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909514<br>(ii) https://doi.org/10.1594/PANGAEA.909572 |
| M77-2 | 064-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909515<br>(ii) https://doi.org/10.1594/PANGAEA.909573 |
| M77-2 | 065-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909516<br>(ii) https://doi.org/10.1594/PANGAEA.909574 |
| M77-2 | 067-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909492<br>(ii) https://doi.org/10.1594/PANGAEA.909575 |
| M77-2 | 069-2 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909519<br>(ii) https://doi.org/10.1594/PANGAEA.909576 |
| M77-2 | 071-1 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909520<br>(ii) https://doi.org/10.1594/PANGAEA.909577 |
| M77-2 | 072-1 MUC | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.909521<br>(ii) https://doi.org/10.1594/PANGAEA.909578 |

* Mislabelled as 626 BIGO 3 in Bohlen et al. [2011]

**BIGO-T was equipped with only one chamber. The chamber was flushed half way through the incubation to obtain two fluxes
***Incorrectly labelled as 487 MUC 39 in some published studies.

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**Table 30: DOIs for benthic fluxes and surface sediments from MSM17/4. See also https://doi.org/10.1594/PANGAEA.835700.**

Station labelling for BIGOs: #/#: The first number is the station number of the lander deployment, the second is the recovery number. *Either of these could have been used in PANGAEA or in published papers*. Use of the deployment number is preferred. Related publications are listed in the footnote.

| **Cruise-id** | **Event label** | **Analysis** | **DOI** |
|---|---|---|---|
| **Benthic Landers (BIGO)** | | | |
| MSM17/4 | 409/425 BIGO 1-2 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 422/438 BIGO 2-1 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 453/471 BIGO 1-3 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 466/476 BIGO 2-2 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 485/498 BIGO 1-4 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 494/513 BIGO 2-3 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 530/544 BIGO 1-5 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 539/552 BIGO 2-4 | (i) Sediment geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.835700<br>(ii) https://doi.org/10.1594/PANGAEA.835700 |
| **Multiple-corer (MUC)** | | | |
| MSM17/4 | 330 MUC 4 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 335 MUC 7 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 366 MUC 15 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 378 MUC 20 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 406 MUC 25 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 421 MUC 28 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 448 MUC 31 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 463 MUC 35 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 483 MUC 36 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |

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| MSM17/4 | 506 MUC 44 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 521 MUC 46 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 528 MUC 48 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 536 MUC 50 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 560 MUC 52 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |
| MSM17/4 | 584 MUC 53 | (i) Sediment geochemistry | (i) https://doi.org/10.1594/PANGAEA.835700 |

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**Table 31: DOIs for benthic fluxes and surface sediments from M92. See also https://doi.org/10.1594/PANGAEA.928204.**

Station labelling for BIGOs: #/#: The first number is the station number of the lander deployment, the second is the recovery number. *Either of these could have been used in PANGAEA or in published papers*. Use of the deployment number is preferred. Related publications are listed in the footnote.

| **Cruise-id** | **Event label** | **Analysis** | **DOI** |
|---|---|---|---|
| **Benthic Landers (BIGO)** | | | |
| M92 | 030/44 BIGO 2-1 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867623<br>(ii) https://doi.org/10.1594/PANGAEA.867664<br>(iii) https://doi.org/10.1594/PANGAEA.867713<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 057/85 BIGO 1-1 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867627<br>(ii) https://doi.org/10.1594/PANGAEA.867667<br>(iii) https://doi.org/10.1594/PANGAEA.867714<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 074/97 BIGO 2-2 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867629<br>(ii) https://doi.org/10.1594/PANGAEA.867669<br>(iii) https://doi.org/10.1594/PANGAEA.867715<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 110/131 BIGO 1–2 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes<br>(v) Freeze /thaw nutrients<br>(vi) $\delta^{15}N$, $\delta^{18}O$ of $NO_3$ in freeze/thaw sediment | (i) https://doi.org/10.1594/PANGAEA.867633<br>(ii) https://doi.org/10.1594/PANGAEA.867672<br>(iii) https://doi.org/10.1594/PANGAEA.867716<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement)<br>(v) https://doi.org/10.1594/PANGAEA.918339<br>(vi) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 124/143 BIGO 2-3 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867635<br>(ii) https://doi.org/10.1594/PANGAEA.867673<br>(iii) https://doi.org/10.1594/PANGAEA.867717<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 159/173 BIGO 1-3 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867638<br>(ii) https://doi.org/10.1594/PANGAEA.867675<br>(iii) https://doi.org/10.1594/PANGAEA.867718<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 165/187 BIGO 2-4 | (i) Porewater geochem. | (i) https://doi.org/10.1594/PANGAEA.867640 |

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| | | (ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes<br>(v) Freeze /thaw nutrients | (ii) https://doi.org/10.1594/PANGAEA.867676<br>(iii) https://doi.org/10.1594/PANGAEA.867719<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement)<br>(v)https://doi.org/10.1594/PANGAEA.918339 |
| M92 | 201/217 BIGO 1-4 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867643<br>(ii) https://doi.org/10.1594/PANGAEA.867678<br>(iii) https://doi.org/10.1594/PANGAEA.867720<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 207/232 BIGO 2-5 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867644<br>(ii) https://doi.org/10.1594/PANGAEA.867679 -<br>(iii) https://doi.org/10.1594/PANGAEA.867721<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 249/267 BIGO 1-5 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Benthic fluxes/syringes<br>(iv) N and O isotopes | (i) https://doi.org/10.1594/PANGAEA.867650<br>(ii) https://doi.org/10.1594/PANGAEA.867685<br>(iii) https://doi.org/10.1594/PANGAEA.867722<br>(iv) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| **Multiple-corer (MUC)** | | | |
| M92 | 006 MUC 1 | (i) Porewater geochem. | (i) https://doi.org/10.1594/PANGAEA.867621 |
| M92 | 017 MUC 5 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) $\delta^{15}N$ of porewater $NH_4$ | (i) https://doi.org/10.1594/PANGAEA.867622<br>(ii) https://doi.org/10.1594/PANGAEA.867663<br>(iii) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 026 MUC 9 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$)<br>(iv) Excess $^{210}Pb$ | (i) https://doi.org/10.1594/PANGAEA.922468<br>(ii) https://doi.org/10.1594/PANGAEA.922476<br>(iii) https://doi.org/10.1594/PANGAEA.920702<br>(iv) https://doi.org/10.1594/PANGAEA.922194 |
| M92 | 036 MUC 10 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.867624<br>(ii) https://doi.org/10.1594/PANGAEA.867665<br>(iii) https://doi.org/10.1594/PANGAEA.920702 |
| M92 | 037 MUC 11 | (i) Excess $^{210}Pb$ | (i) https://doi.org/10.1594/PANGAEA.922194 |
| M92 | 042 MUC 12 | (i) Excess $^{210}Pb$ | (i) https://doi.org/10.1594/PANGAEA.922194 |
| M92 | 054 MUC 13 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) $\delta^{15}N$ of porewater $NH_4$ | (i) https://doi.org/10.1594/PANGAEA.867625<br>(ii) https://doi.org/10.1594/PANGAEA.867666<br>(iii) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 055 MUC 14 | (i) Porewater geochem. | (i) https://doi.org/10.1594/PANGAEA.867626 |

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| M92 | 069 MUC 16 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.867628<br>(ii) https://doi.org/10.1594/PANGAEA.867668<br>(iii) https://doi.org/10.1594/PANGAEA.920702 |
| M92 | 086 MUC 17 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.867630<br>(ii) https://doi.org/10.1594/PANGAEA.867670<br>(iii) https://doi.org/10.1594/PANGAEA.920702 |
| M92 | 087 MUC 18 | (i) Excess $^{210}$Pb | (i) https://doi.org/10.1594/PANGAEA.922194 |
| M92 | 107 MUC 23 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$)<br>(iv) Excess $^{210}$Pb | (i) https://doi.org/10.1594/PANGAEA.867631<br>(ii) https://doi.org/10.1594/PANGAEA.867671<br>(iii) https://doi.org/10.1594/PANGAEA.920702<br>(iv) https://doi.org/10.1594/PANGAEA.922194 |
| M92 | 108 MUC 24 | (i) Porewater geochem.<br>(ii) $\delta^{15}$N of porewater $NH_4$ | (i) https://doi.org/10.1594/PANGAEA.867632<br>(ii) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 121 MUC 26 | (i) Porewater geochem. | (i) https://doi.org/10.1594/PANGAEA.867634 |
| M92 | 136 MUC 27 | (i) Freeze/thaw nutrients<br>(ii) $\delta^{15}$N, $\delta^{18}$O of $NO_3$ in freeze/thaw sediment | (i) https://doi.org/10.1594/PANGAEA.918339<br>(ii) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 155 MUC 28 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.867637<br>(ii) https://doi.org/10.1594/PANGAEA.867674<br>(iii) https://doi.org/10.1594/PANGAEA.920702 |
| M92 | 163 MUC 30 | (i) Porewater geochem.<br>(ii) Excess $^{210}$Pb | (i) https://doi.org/10.1594/PANGAEA.867639<br>(ii) https://doi.org/10.1594/PANGAEA.922194 |
| M92 | 178 MUC 33 | (i) Freeze/thaw nutrients<br>(ii) $\delta^{15}$N, $\delta^{18}$O of $NO_3$ in freeze/thaw sediment | (i) https://doi.org/10.1594/PANGAEA.918339<br>(ii) https://doi.org/10.1016/j.gca.2018.10.025 (Supplement) |
| M92 | 198 MUC 34 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$) | (i) https://doi.org/10.1594/PANGAEA.867642<br>(ii) https://doi.org/10.1594/PANGAEA.867677<br>(iii) https://doi.org/10.1594/PANGAEA.920702 |
| M92 | 208 MUC 36 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Freeze /thaw nutrients | (i) https://doi.org/10.1594/PANGAEA.867645<br>(ii) https://doi.org/10.1594/PANGAEA.867680<br>(iii) https://doi.org/10.1594/PANGAEA.918339 |
| M92 | 220 MUC 39 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$)<br>(iv) Freeze/thaw nutrients | (i) https://doi.org/10.1594/PANGAEA.867646<br>(ii) https://doi.org/10.1594/PANGAEA.867681<br>(iii) https://doi.org/10.1594/PANGAEA.920702<br>(iv) https://doi.org/10.1594/PANGAEA.918339 |
| M92 | 235 MUC 42 | (i) Porewater geochem. | (i) https://doi.org/10.1594/PANGAEA.867647 |

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| | | (ii) Particulate geochem. | (ii) https://doi.org/10.1594/PANGAEA.867682 |
| M92 | 247 MUC 45 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$)<br>(iv) Excess $^{210}Pb$<br>(v) Freeze /thaw nutrients | (i) https://doi.org/10.1594/PANGAEA.867648<br>(ii) https://doi.org/10.1594/PANGAEA.867683<br>(iii) https://doi.org/10.1594/PANGAEA.920702<br>(iv) https://doi.org/10.1594/PANGAEA.922194<br>(v) https://doi.org/10.1594/PANGAEA.918339 |
| M92 | 248 MUC 46 | (i) Porewater geochem.<br>(ii) Particulate geochem.<br>(iii) Opal ($SiO_2$)<br>(iv) Excess $^{210}Pb$<br>(v) Freeze /thaw nutrients | (i) https://doi.org/10.1594/PANGAEA.867649<br>(ii) https://doi.org/10.1594/PANGAEA.867684<br>(iii) https://doi.org/10.1594/PANGAEA.920702<br>(iv) https://doi.org/10.1594/PANGAEA.922194<br>(v) https://doi.org/10.1594/PANGAEA.918339 |
| M92 | 289 MUC 50 | (i) Porewater geochem.<br>(ii) Particulate geochem. | (i) https://doi.org/10.1594/PANGAEA.867656<br>(ii) https://doi.org/10.1594/PANGAEA.867690 |

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**Table 32: DOIs for benthic fluxes and surface sediments M107. See also https://doi.org/10.1594/PANGAEA.928206.**

Station labelling for BIGOs: #/#: The first number is the station number of the lander deployment, the second is the recovery number. *Either of these could have been used in PANGAEA or in published papers*. Use of the deployment number is preferred. Related publications are listed in the footnote.

| **Cruise-id** | **Event label** | **Analysis** | **DOI** |
|---|---|---|---|
| | | **Benthic Landers (BIGO)** | |
| M107 | 527/544 BIGO 2-1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884195<br>(ii) https://doi.org/10.1594/PANGAEA.884155<br>(iii) https://doi.org/10.1594/PANGAEA.884214 |
| M107 | 547/569 BIGO 1-1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884193<br>(ii) https://doi.org/10.1594/PANGAEA.884157<br>(iii) https://doi.org/10.1594/PANGAEA.884215 |
| M107 | 557/580 BIGO 2-2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884198<br>(ii) https://doi.org/10.1594/PANGAEA.884160<br>(iii) https://doi.org/10.1594/PANGAEA.884216 |
| M107 | 598/614 BIGO 1-2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884200<br>(ii) https://doi.org/10.1594/PANGAEA.884162<br>(iii) https://doi.org/10.1594/PANGAEA.884213 |
| M107 | 617/642 BIGO 2-3 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884202<br>(ii) https://doi.org/10.1594/PANGAEA.884163<br>(iii) https://doi.org/10.1594/PANGAEA.884218 |
| M107 | 630/660 BIGO 1-3 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884204<br>(ii) https://doi.org/10.1594/PANGAEA.884165<br>(iii) https://doi.org/10.1594/PANGAEA.884219 |
| M107 | 665/683 BIGO 2-4 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884206<br>(ii) https://doi.org/10.1594/PANGAEA.884167<br>(iii) https://doi.org/10.1594/PANGAEA.884220 |
| M107 | 673/698 BIGO 1-4 | (i) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884221 |
| M107 | 688/710 BIGO 2-5 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.884210<br>(ii) https://doi.org/10.1594/PANGAEA.884171<br>(iii) https://doi.org/10.1594/PANGAEA.884222 |
| | | **Multiple-corer (MUC)** | |
| M107 | 524 MUC 1 | (i) Porewater geochemistry | (i) https://doi.org/10.1594/PANGAEA.884194 |

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| | | (ii) Particulate geochemistry | (ii) https://doi.org/10.1594/PANGAEA.884154 |
| M107 | 534 MUC 3 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884196<br>(ii) https://doi.org/10.1594/PANGAEA.884156 |
| M107 | 554 MUC 5 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884197<br>(ii) https://doi.org/10.1594/PANGAEA.884158 |
| M107 | 583 MUC 7 [a] | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884199<br>(ii) https://doi.org/10.1594/PANGAEA.884161 |
| M107 | 612 MUC 8 | (i) Porewater geochemistry | (i) https://doi.org/10.1594/PANGAEA.884201 |
| M107 | 628 MUC 10 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884203<br>(ii) https://doi.org/10.1594/PANGAEA.884164 |
| M107 | 658 MUC 13 | (i) Porewater geochemistry | (i) https://doi.org/10.1594/PANGAEA.884205 |
| M107 | 659 MUC 14 | (i) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884166 |
| M107 | 669 MUC 15 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884207<br>(ii) https://doi.org/10.1594/PANGAEA.884168 |
| M107 | 672 MUC 17 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884208<br>(ii) https://doi.org/10.1594/PANGAEA.884169 |
| M107 | 686 MUC 19 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884209<br>(ii) https://doi.org/10.1594/PANGAEA.884170 |
| M107 | 697 MUC 20 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.884211<br>(ii) https://doi.org/10.1594/PANGAEA.884172 |

[a] Three cores for ex situ incubation experiments (Schroller-Lomnitz et al., 2019)

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**Table 33: DOIs for benthic fluxes and surface sediments from M136. See also https://doi.org/10.1594/PANGAEA.928280.**

Station labelling for BIGOs: #/#: The first number is the station number of the lander deployment, the second is the recovery number. *Either of these could have been used in PANGAEA or in published papers*. Use of the deployment number is preferred. Related publications are listed in the footnote.

| **Cruise-id** | **Event label** | **Analysis** | **DOI** |
|---|---|---|---|
| **Benthic Landers (BIGO)** | | | |
| M136 | 415/440 BIGO 2-1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) DOC fluxes | (i) https://doi.org/10.1594/PANGAEA.922509<br>(ii) https://doi.org/10.1594/PANGAEA.922531<br>(iii) https://doi.org/10.1594/PANGAEA.910021<br>(iv) https://doi.org/10.1594/PANGAEA.913476 |
| M136 | 430/455 BIGO 1-1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.922511<br>(ii) https://doi.org/10.1594/PANGAEA.922533<br>(iii) https://doi.org/10.1594/PANGAEA.910024 |
| M136 | 460/469 BIGO 2-2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.922512<br>(ii) https://doi.org/10.1594/PANGAEA.922534<br>(iii) https://doi.org/10.1594/PANGAEA.910026 |
| M136 | 471/497 BIGO 1-2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) DOC fluxes | (i) https://doi.org/10.1594/PANGAEA.922513<br>(ii) https://doi.org/10.1594/PANGAEA.922535<br>(iii) https://doi.org/10.1594/PANGAEA.910027<br>(iv) https://doi.org/10.1594/PANGAEA.913476 |
| M136 | 488/513 BIGO 2-3 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) DOC fluxes | (i) https://doi.org/10.1594/PANGAEA.922515<br>(ii) https://doi.org/10.1594/PANGAEA.922537<br>(iii) https://doi.org/10.1594/PANGAEA.910028<br>(iv) https://doi.org/10.1594/PANGAEA.913476 |
| M136 | 503/526 BIGO 1-3 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) DOC fluxes | (i) https://doi.org/10.1594/PANGAEA.922516<br>(ii) https://doi.org/10.1594/PANGAEA.922538<br>(iii) https://doi.org/10.1594/PANGAEA.910029<br>(iv) https://doi.org/10.1594/PANGAEA.913476 |
| M136 | 533/553 BIGO 2-4 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes<br>(iv) DOC fluxes | (i) https://doi.org/10.1594/PANGAEA.922517<br>(ii) https://doi.org/10.1594/PANGAEA.922539<br>(iii) https://doi.org/10.1594/PANGAEA.910030<br>(iv) https://doi.org/10.1594/PANGAEA.913476 |
| M136 | 545/562 BIGO 1-4 | (i) Porewater geochemistry | (i) https://doi.org/10.1594/PANGAEA.922519 |

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| | | (ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (ii) https://doi.org/10.1594/PANGAEA.922541<br>(iii) https://doi.org/10.1594/PANGAEA.910031 |
| **Multiple-corer (MUC)** | | | |
| M136 | 338 MUC 1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.922504<br>(ii)https://doi.org/10.1594/PANGAEA.922526 |
| M136 | 342 MUC 2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.922505<br>(ii) https://doi.org/10.1594/PANGAEA.922528 |
| M136 | 409 MUC 4 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.922507<br>(ii) https://doi.org/10.1594/PANGAEA.922529 |
| M136 | 412 MUC 5 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}$Pb<br>(iv) DOC | (i) https://doi.org/10.1594/PANGAEA.922508<br>(ii) https://doi.org/10.1594/PANGAEA.922530<br>(iii) https://doi.org/10.1594/PANGAEA.922545<br>(iv) https://doi.org/10.1594/PANGAEA.913477 |
| M136 | 426 MUC 6 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}$Pb<br>(iv) DOC | (i) https://doi.org/10.1594/PANGAEA.922510<br>(ii) https://doi.org/10.1594/PANGAEA.922532<br>(iii) https://doi.org/10.1594/PANGAEA.922545<br>(iv) doi.org/10.1594/PANGAEA.913477 |
| M136 | 483 MUC 8 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}$Pb<br>(iv) DOC | (i) https://doi.org/10.1594/PANGAEA.922514<br>(ii) https://doi.org/10.1594/PANGAEA.922536<br>(iii) https://doi.org/10.1594/PANGAEA.922545<br>(iv) https://doi.org/10.1594/PANGAEA.913477 |
| M136 | 543 MUC 9 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}$Pb | (i) https://doi.org/10.1594/PANGAEA.922518<br>(ii)https://doi.org/10.1594/PANGAEA.922540<br>(iii) https://doi.org/10.1594/PANGAEA.922545 |
| M136 | 574 MUC 10A | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}$Pb | (i) https://doi.org/10.1594/PANGAEA.922520<br>(ii) https://doi.org/10.1594/PANGAEA.922542<br>(iii) https://doi.org/10.1594/PANGAEA.922545 |
| M136 | 574 MUC 10B | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}$Pb | (i) https://doi.org/10.1594/PANGAEA.923364<br>(ii) https://doi.org/10.1594/PANGAEA.923362<br>(iii) https://doi.org/10.1594/PANGAEA.922545 |
| M136 | 577 MUC 11 | (i) Particulate geochemistry<br>(i)i Excess $^{210}$Pb<br>(iii) DOC | (i)https://doi.org/10.1594/PANGAEA.922543<br>(ii) https://doi.org/10.1594/PANGAEA.922545<br>(iii) https://doi.org/10.1594/PANGAEA.913477 |
| M136 | 588 MUC 12A | (i) Porewater geochemistry | (i) https://doi.org/10.1594/PANGAEA.922521 |

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| | | (ii) Particulate geochemistry | (ii)https://doi.org/10.1594/PANGAEA.922544 |
| M136 | 588 MUC 12B | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$ | (i) https://doi.org/10.1594/PANGAEA.923367<br>(ii) https://doi.org/10.1594/PANGAEA.922544<br>(iii) https://doi.org/10.1594/PANGAEA.922545 |

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**Table 34: DOIs for benthic fluxes and surface sediments from M137. See also https://doi.org/10.1594/PANGAEA.928281.**

Station labelling for BIGOs: #/#: The first number is the station number of the lander deployment, the second is the recovery number. *Either of these could have been used in PANGAEA or in published papers*. Use of the deployment number is preferred.

| **Cruise-id** | **Event label** | **Analysis** | **DOI** |
|---|---|---|---|
| **Benthic Landers (BIGO)** | | | |
| M137 | 596/626 BIGO 2-1 | (i) Porewater geochemistry<br>(ii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923172<br>(ii) https://doi.org/10.1594/PANGAEA.923157 |
| M137 | 614 BIGO 1-1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923173<br>(ii) https://doi.org/10.1594/PANGAEA.922715<br>(iii) https://doi.org/10.1594/PANGAEA.923158 |
| M137 | 642/666 BIGO 2-2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923174<br>(ii) https://doi.org/10.1594/PANGAEA.922717<br>(iii) https://doi.org/10.1594/PANGAEA.923159 |
| M137 | 656/680 BIGO 1-2 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923176<br>(ii) https://doi.org/10.1594/PANGAEA.922719<br>(iii) https://doi.org/10.1594/PANGAEA.923160 |
| M137 | 656/680 BIGO 1-2 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923493<br>(ii) https://doi.org/10.1594/PANGAEA.923503<br>(iii) https://doi.org/10.1594/PANGAEA.923160 |
| M137 | 684/702 BIGO 2-3 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923177<br>(ii) https://doi.org/10.1594/PANGAEA.922727<br>(iii) https://doi.org/10.1594/PANGAEA.923161 |
| M137 | 684/702 BIGO 2-3 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923494<br>(ii) https://doi.org/10.1594/PANGAEA.923504<br>(iii) https://doi.org/10.1594/PANGAEA.923161 |
| M137 | 696/717 BIGO 1-3 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923179<br>(ii) https://doi.org/10.1594/PANGAEA.922728<br>(iii) https://doi.org/10.1594/PANGAEA.923162 |
| M137 | 696/717 BIGO 1-3 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923495<br>(ii) https://doi.org/10.1594/PANGAEA.923505<br>(iii) https://doi.org/10.1594/PANGAEA.923162 |
| M137 | 739/755 BIGO 2-4 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.923180<br>(ii) https://doi.org/10.1594/PANGAEA.922729 |

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|---|---|---|---|
| | | (iii) Benthic fluxes/syringes | (iii) https://doi.org/10.1594/PANGAEA.923163 |
| M137 | 739/755 BIGO 2-4 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923496<br>(ii) https://doi.org/10.1594/PANGAEA.923506<br>(iii) https://doi.org/10.1594/PANGAEA.923163 |
| M137 | 754/770 BIGO 1-4 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923181<br>(ii) https://doi.org/10.1594/PANGAEA.922730<br>(iii) https://doi.org/10.1594/PANGAEA.923164 |
| M137 | 754/770 BIGO 1-4 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923497<br>(ii) https://doi.org/10.1594/PANGAEA.923485<br>(iii) https://doi.org/10.1594/PANGAEA.923164 |
| M137 | 777/799 BIGO 2-5 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923182<br>(ii) https://doi.org/10.1594/PANGAEA.922732<br>(iii) https://doi.org/10.1594/PANGAEA.923165 |
| M137 | 791/812 BIGO 1-5 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923184<br>(ii) https://doi.org/10.1594/PANGAEA.922734<br>(iii) https://doi.org/10.1594/PANGAEA.923166 |
| M137 | 791/812 BIGO 1-5 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923498<br>(ii) https://doi.org/10.1594/PANGAEA.923486<br>(iii) https://doi.org/10.1594/PANGAEA.923166 |
| M137 | 817/836 BIGO 2-6 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923185<br>(ii) https://doi.org/10.1594/PANGAEA.922735<br>(iii) https://doi.org/10.1594/PANGAEA.923167 |
| M137 | 817/836 BIGO 2-6 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923499<br>(ii) https://doi.org/10.1594/PANGAEA.923487<br>(iii) https://doi.org/10.1594/PANGAEA.923167 |
| M137 | 830/854 BIGO 1-6 K1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923186<br>(ii) https://doi.org/10.1594/PANGAEA.922736<br>(iii) https://doi.org/10.1594/PANGAEA.923168 |
| M137 | 830/854 BIGO 1-6 K2 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Benthic fluxes/syringes | (i) https://doi.org/10.1594/PANGAEA.923500<br>(ii) https://doi.org/10.1594/PANGAEA.923488<br>(iii) https://doi.org/10.1594/PANGAEA.923168 |
| **Multiple-corer (MUC)** | | | |
| M137 | 595 MUC 1 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.923171<br>(ii) https://doi.org/10.1594/PANGAEA.922709 |

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| M137 | 651 MUC 8 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$<br>(iv) DOC | (i) https://doi.org/10.1594/PANGAEA.923175<br>(ii) https://doi.org/10.1594/PANGAEA.922718<br>(iii) https://doi.org/10.1594/PANGAEA.923238<br>(iv) https://doi.org/10.1594/PANGAEA.913477 |
| M137 | 692 MUC 15 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry<br>(iii) Excess $^{210}Pb$<br>(iv) DOC | (i) https://doi.org/10.1594/PANGAEA.923178<br>(ii) https://doi.org/10.1594/PANGAEA.922725<br>(iii) https://doi.org/10.1594/PANGAEA.923238<br>(iv) https://doi.org/10.1594/PANGAEA.913477 |
| M137 | 721 MUC 22 | (i) Freeze /thaw nutrients | (i) https://doi.org/10.1594/PANGAEA.918339 |
| M137 | 751 MUC 26 | (i) Freeze /thaw nutrients | (i) https://doi.org/10.1594/PANGAEA.918339 |
| M137 | 787 MUC 33 | (i) Porewater geochemistry<br>(ii) Particulate geochemistry | (i) https://doi.org/10.1594/PANGAEA.923183<br>(ii) https://doi.org/10.1594/PANGAEA.922733 |

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**Table 35: DOIs for Denitrification and Respiration Rates of Foraminifera.**

| **Cruise-id** | **Method** | **DOI** | **References** |
|---|---|---|---|
| M137<br>M77/1 | Denitrification and oxygen respiration rates of foraminifera | https://doi.org/10.1594/PANGAEA.919751 | Glock et al. (2019) |
| Field trip to Gullmar Fjord (Sweden) 2017 | Denitrification and oxygen respiration rates of foraminifera | https://doi.org/10.1594/PANGAEA.919839 | Woehle et al. (2018)<br>Glock et al. (2019) |

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