**Supplemental Material for**

**Spatial and seasonal distribution of dissolved and particulate bioactive metals in Antarctic sea ice**

**Table S1.** Sea-ice physical and biogeochemical parameters.Temperature (oC), salinity, concentration of chlorophyll-*a* (Chla [µg L-1]), particulate organic carbon (POC [µM]), nitrate + nitrite (NOx [µM]), phosphate (PO4-3 [µM]) and silicic acid (Si(OH) [µM]) in bulk sea ice for each section of all stations (Sample ID) encountered along the three field campaigns (Voyage) are listed.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Voyage** | **Sample ID** | **Depth (cm)** | **Temp (oC)** | **Salinity**  | **Chl*a* (µg L-1)** | **POC (µM)** | **NOx (µM)** | **PO4-3 (µM)** | **Si(OH) (µM)** | **NH4+ (µM)** |
| SIPEX-2 | st2SI1 | 0–9 | -2.5 | 10.1 | 0.3 | 12.2 | 6.42 | 0.39 | 18.3 | 0.79 |
| SIPEX-2 | st2SI2 | 9–16 | -2.2 | 9.5 | 0.2 | 23.7 | 2.71 | 0.81 | 11.7 | 0.57 |
| SIPEX-2 | st2SI3 | 16–26 | -2.1 | 8.4 | 1.9 | 10.8 | 1.78 | 0.26 | 9.99 | 0.29 |
| SIPEX-2 | st2SI4 | 26–33 | -2.2 | 4.1 | 1.6 | 29.2 | 0.57 | 0.26 | 4.99 | 1.43 |
| SIPEX-2 | st2SI5 | 61–68 | -2.1 | 5.0 | 3.9 | 31.6 | 1.07 | 0.45 | 3.33 | 0.36 |
| SIPEX-2 | st2SI6 | 68–75 | -1.9 | 7.6 | 3.9 | 37.5 | 2.64 | 0.71 | 8.32 | 1.36 |
| SIPEX-2 | st3SI1 | 0–7 | -8.4 | 18.5 | 0.1 | 5.3 | 3.93 | 0.16 | 8.32 | 0.29 |
| SIPEX-2 | st3SI2 | 7–15 | -6.2 | 9.8 | 1.0 | 7.6 | 7.35 | 0.39 | 16.7 | 0.50 |
| SIPEX-2 | st3SI3 | 34–41 | -4.6 | 5.1 | 0.7 | 7.5 | 4.28 | 0.36 | 11.7 | 0.50 |
| SIPEX-2 | st3SI4 | 92–99 | -4.7 | 3.0 | 0.2 | 18.0 | 5.85 | 0.42 | 11.7 | 0.36 |
| SIPEX-2 | st3SI5 | 129–136 | -2.5 | 4.5 | 2.7 | 10.5 | 3.93 | 0.32 | 8.32 | 0.21 |
| SIPEX-2 | st3SI6 | 136–143 | -2.2 | 5.7 | 2.7 | 2.0 | 2.07 | 0.19 | 4.99 | 0.29 |
| SIPEX-2 | st4SI1 | 0–12 | -3.1 | 8.9 | 1.6 | 19.2 | 6.21 | 0.61 | 20.0 | 0.36 |
| SIPEX-2 | st4SI2 | 12–24 | -4.2 | 9.1 | 0.7 | 9.6 | 0.93 | 0.19 | 8.32 | 0.50 |
| SIPEX-2 | st4SI3 | 24–34 | -3.6 | 6.6 | 3.2 | 9.4 | 1.14 | 0.19 | 3.33 | 0.36 |
| SIPEX-2 | st4SI4 | 34–43.5 | -3.2 | 4.8 | 1.5 | 7.1 | 1.78 | 0.26 | 4.99 | 0.21 |
| SIPEX-2 | st4SI5 | 75–83 | -2.2 | 4.9 | 0.9 | 4.5 | 2.86 | 0.23 | 4.99 | 0.21 |
| SIPEX-2 | st4SI6 | 83–90 | -2.0 | 7.1 | 0.8 | 3.7 | 4.07 | 0.23 | 8.32 | 0.43 |
| SIPEX-2 | st6SI1 | 0–7 | -2.1 | 12.6 | 8.4 | 90.7 | 0.21 | 0.52 | 26.6 | 5.00 |
| SIPEX-2 | st6SI2 | 7–14 | -2.1 | 7.1 | 1.8 | 32.9 | 0.86 | 0.39 | 11.7 | 3.14 |
| SIPEX-2 | st6SI3 | 21–28 | -2.1 | 8.1 | 0.4 | 10.5 | 0.43 | 0.19 | 4.99 | 0.14 |
| SIPEX-2 | st6SI4 | 28–35 | -1.4 | 4.6 | 0.0 | 8.8 | 0.50 | 0.19 | 3.33 | 0.29 |
| SIPEX-2 | st6SI5 | 56–63 | -1.5 | 4.0 | 1.2 | 20.8 | 1.14 | 0.19 | 3.33 | 0.64 |
| SIPEX-2 | st6SI6 | 63–72 | -1.7 | 4.2 | 2.7 | 36.1 | 1.71 | 0.45 | 6.66 | 1.07 |
| SIPEX-2 | st7SI1 | 0–7 | -2.9 | 14.4 | 1.6 | 75.7 | 2.57 | 0.42 | 9.99 | 0.86 |
| SIPEX-2 | st7SI2 | 7–14 | -2.8 | 4.3 | 1.0 | 59.7 | 0.29 | 0.13 | 1.66 | 0.64 |
| SIPEX-2 | st7SI3 | 14–21 | -2.6 | 4.3 | 1.0 | 13.1 | 0.14 | 0.16 | - | 1.07 |
| SIPEX-2 | st7SI4 | 43–50 | -2.2 | 3.9 | 4.4 | 87.7 | 1.78 | 0.65 | 1.66 | 0.64 |
| SIPEX-2 | st7SI5 | 71–77 | -1.9 | 6.9 | 9.1 | 77.3 | 8.21 | 1.91 | 9.99 | 14.3 |
| SIPEX-2 | st7SI6 | 78–85 | -1.9 | 6.6 | 6.4 | 64.2 | 6.57 | 1.36 | 11.7 | 3.93 |
| SIPEX-2 | st8SI1 | 0–7 | -2.0 | 3.9 | 1.0 | 35.3 | 2.50 | 0.39 | 6.66 | 0.71 |
| SIPEX-2 | st8SI2 | 7–14 | -1.9 | 4.1 | 1.2 | 18.1 | - | 0.10 | 1.66 | 0.36 |
| SIPEX-2 | st8SI3 | 44–51 | -2.1 | 4.3 | 1.6 | 43.0 | - | 0.19 | - | 0.36 |
| SIPEX-2 | st8SI4 | 61–68 | -2.4 | 4.6 | 7.8 | 35.4 | 3.00 | 0.61 | 3.33 | 0.71 |
| SIPEX-2 | st8SI5 | 81–88 | -2.8 | 5.5 | 3.8 | 16.6 | 3.85 | 0.39 | 6.66 | 1.21 |
| SIPEX-2 | st8SI6 | 88–95 | -2.9 | 7.3 | 4.4 | 20.9 | 6.64 | 0.55 | 9.99 | 11.4 |
| Davis | st1SI1 | 0–20 | -5.2 | 0.2 | 0.2 | 1.6 | 2.17 | 0.29 | 5.86 | 0.37 |
| Davis | st1SI2 | 20–40 | -4.8 | 6.8 | 0.4 | 1.8 | 0.78 | 0.19 | 4.43 | 0.61 |
| Davis | st1SI3 | 40–130 | -3.9 | 5.2 | 0.7 | 1.5 | 2.32 | 0.23 | 4.89 | 0.96 |
| Davis | st1SI4 | 130–140 | -2.8 | 3.7 | 1.0 | 1.1 | 0.85 | 0.12 | 3.94 | < 0.01 |
| Davis | st1SI5 | 140–170 | -2.3 | 4.7 | 0.8 | 1.2 | 0.73 | 0.10 | 2.16 | 0.08 |
| Davis | st1SI6 | 170–175 | -1.8 | 1.6 | - | 3.5 | 2.38 | 0.29 | 3.82 | < 0.01 |
| Davis | st1SI7 | 175–180 | -1.6 | 10.2 | 267 | 91.4 | 74.5 | 9.43 | 14.1 | 1.93 |
| Davis | st2SI1 | 0–20 | -5.1 | 0.1 | 0.5 | 2.5 | 3.29 | 0.52 | 5.80 | 1.95 |
| Davis | st2SI2 | 20–40 | -4.7 | 6.1 | 0.2 | 2.6 | 1.22 | 0.35 | 5.37 | 0.67 |
| Davis | st2SI3 | 40–123 | -3.5 | 4.3 | 0.2 | 1.6 | 1.54 | 0.56 | 4.63 | 0.90 |
| Davis | st2SI4 | 123–133 | -2.6 | 3.9 | 0.7 | 2.7 | 0.51 | 0.08 | 1.27 | < 0.01 |
| Davis | st2SI5 | 133–163 | -2.1 | 4.6 | 0.8 | 1.5 | 0.65 | 0.21 | 2.03 | 0.10 |
| Davis | st2SI6 | 163–168 | -1.7 | 6.0 | 2.1 | 5.1 | 2.14 | 0.19 | 3.32 | 0.08 |
| Davis | st2SI7 | 168–173 | -1.6 | 12.7 | 244 | 227 | 66.4 | 5.83 | 11.1 | 2.65 |
| Davis | st3SI1 | 0–20 | -5.6 | 0.2 | 0.1 | 1.8 | 2.65 | 0.25 | 4.49 | 0.91 |
| Davis | st3SI2 | 20–40 | -5.0 | 5.4 | 0.6 | 1.8 | 1.92 | 0.22 | 5.54 | 1.18 |
| Davis | st3SI3 | 40–118 | -3.7 | 5.4 | 1.3 | 1.5 | 2.13 | 0.25 | 5.46 | 1.37 |
| Davis | st3SI4 | 118–128 | -2.8 | 4.3 | 1.7 | 1.7 | 0.70 | 0.11 | 2.10 | < 0.01 |
| Davis | st3SI5 | 128–158 | -2.3 | 4.0 | 0.7 | 1.4 | 0.70 | 0.10 | 1.33 | 0.01 |
| Davis | st3SI6 | 158–163 | -2.0 | 5.0 | 2.8 | 5.7 | 2.72 | 0.25 | 1.44 | < 0.01 |
| Davis | st3SI7 | 163–168 | -1.9 | 11.1 | 232 | 169 | 38.8 | 6.34 | 7.60 | 4.74 |
| Davis | st4SI1 | 0–20 | -4.2 | 1.4 | - | 2.2 | 2.24 | 0.35 | 5.77 | 0.86 |
| Davis | st4SI2 | 20–40 | -4.1 | 5.9 | - | 2.5 | 0.87 | 0.18 | 4.51 | 0.79 |
| Davis | st4SI3 | 40–128 | -3.3 | 5.1 | 0.8 | 1.9 | 1.68 | 0.21 | 4.65 | 1.02 |
| Davis | st4SI4 | 128–138 | -2.5 | 4.3 | 1.1 | 1.6 | 0.59 | 0.08 | 3.50 | 0.12 |
| Davis | st4SI5 | 138–168 | -1.9 | 3.8 | 1.3 | 1.2 | 0.66 | 0.08 | 2.48 | 0.08 |
| Davis | st4SI6 | 168–173 | -1.4 | 4.3 | 11.6 | 4.7 | 3.70 | 0.32 | 2.96 | 0.42 |
| Davis | st4SI7 | 173–178 | -1.2 | 8.6 | 164 | 76.7 | 58.8 | 7.71 | 7.73 | 4.09 |
| Davis | st5SI1 | 0–20 | -3.5 | 0.4 | 0.2 | 2.2 | 1.25 | 0.22 | 4.95 | 0.60 |
| Davis | st5SI2 | 20–40 | -3.5 | 4.5 | 0.7 | 2.0 | 1.02 | 0.18 | 6.49 | 0.99 |
| Davis | st5SI3 | 40–122 | -3.2 | 5.6 | 1.5 | 1.7 | 1.29 | 0.18 | 5.32 | 1.24 |
| Davis | st5SI4 | 122–132 | -2.8 | 4.2 | 2.2 | 2.7 | 0.85 | 0.12 | 2.26 | 0.12 |
| Davis | st5SI5 | 132–162 | -2.4 | 4.0 | 0.6 | 1.7 | 1.07 | 0.11 | 2.02 | 0.07 |
| Davis | st5SI6 | 162–167 | -2.0 | 5.1 | 11.2 | 3.7 | 2.50 | 0.25 | 3.45 | 0.01 |
| Davis | st5SI7 | 167–172 | -1.9 | - | 240 | 273 | 145 | 10.3 | 36.5 | 1.86 |
| Davis | st6SI1 | 0–20 | -2.7 | 0.3 | 0.7 | 1.7 | 1.60 | 0.19 | 0.11 | 0.78 |
| Davis | st6SI2 | 20–40 | -2.8 | 5.9 | 2.6 | 3.0 | 0.47 | 0.13 | 4.57 | 0.78 |
| Davis | st6SI3 | 40–105 | -2.6 | 4.9 | 3.0 | 2.3 | 0.90 | 0.15 | 3.37 | 0.95 |
| Davis | st6SI4 | 105–115 | -2.3 | 4.3 | 1.4 | 1.6 | 0.37 | 0.06 | 1.12 | 0.22 |
| Davis | st6SI5 | 115–145 | -2.0 | 3.5 | 1.1 | 1.9 | 0.38 | 0.06 | 1.04 | 0.10 |
| Davis | st6SI6 | 145–150 | -1.7 | 3.6 | 27.7 | 5.3 | 2.96 | 0.15 | 0.83 | 0.10 |
| Davis | st6SI7 | 150–155 | -1.6 | 5.5 | 190 | 138 | 31.8 | 4.85 | 5.09 | 3.09 |
| AAV2 | st1SI1 | 0–12 | -1.3 | 0.5 | 0.6 | 104 | 0.07 | 0.04 | 0.50 | 0.27 |
| AAV2 | st1SI2 | 12–20 | -1.4 | 1.6 | 0.5 | 79.4 | 0.07 | 0.05 | 0.40 | 0.21 |
| AAV2 | st1SI3 | 74–84 | -1.0 | 3.0 | 1.1 | 20.5 | 0.10 | 0.06 | 1.10 | 0.25 |
| AAV2 | st1SI4 | 104–114 | -0.6 | 3.0 | 0.9 | 18.6 | 0.08 | 0.06 | 0.20 | 0.21 |
| AAV2 | st1SI5 | 114–124 | -0.4 | 3.7 | 1.8 | 76.2 | 0.08 | 0.11 | 0.50 | 0.41 |
| AAV2 | st1SI6 | 124–132 | -0.4 | 5.4 | 51.9 | 285 | 0.11 | 1.72 | 3.40 | 1.30 |
| AAV2 | st2SI1 | 0–12 | -1.7 | 0.9 | 0.9 | 56.1 | 0.07 | 0.05 | 0.30 | 0.26 |
| AAV2 | st2SI2 | 12–20 | -1.5 | 2.9 | 2.6 | 71.5 | 0.07 | 0.08 | 0.30 | 0.21 |
| AAV2 | st2SI3 | 74–84 | -1.6 | 3.7 | 1.7 | 31.5 | 0.06 | 0.04 | 0.50 | 0.11 |
| AAV2 | st2SI4 | 104–114 | -1.3 | 2.9 | 4.0 | 28.3 | 0.06 | 0.03 | 0.80 | 0.04 |
| AAV2 | st2SI5 | 118–128 | -0.7 | 3.7 | 5.0 | 26.2 | 0.16 | 0.05 | 1.20 | 0.03 |
| AAV2 | st2SI6 | 128–138 | -0.9 | 4.7 | 131 | 218 | 4.87 | 0.98 | 9.20 | 0.81 |
| AAV2 | st3SI1 | 0–12 | -1.3 | 0.8 | 5.9 | 254 | 0.77 | 0.01 | 0.20 | 0.29 |
| AAV2 | st3SI2 | 16–26 | -1.2 | 1.3 | 4.2 | 152 | 0.08 | 0.12 | 0.10 | 0.14 |
| AAV2 | st3SI3 | 41–51 | -1.6 | 1.6 | 3.1 | 41.3 | 0.08 | 0.07 | 0.20 | 0.20 |
| AAV2 | st3SI4 | 105–115 | -0.8 | 3.0 | 7.6 | 35.8 | 0.14 | 0.12 | 1.10 | 0.22 |
| AAV2 | st3SI5 | 115–125 | -0.9 | 3.0 | 6.7 | 47.3 | 0.16 | 0.09 | 2.40 | 0.16 |
| AAV2 | st3SI6 | 125–135 | -0.6 | 6.6 | 12.8 | 39.5 | 0.17 | 0.10 | 2.50 | 0.19 |
| AAV2 | st4SI1 | 0–14 | -1.8 | 0.4 | 0.2 | 27.9 | 0.13 | 0.03 | 0.20 | 0.09 |
| AAV2 | st4SI2 | 14–23 | -1.7 | 1.4 | 0.2 | 25.3 | 0.06 | 0.02 | < 0.01 | 0.21 |
| AAV2 | st4SI3 | 53–63 | -1.1 | 2.3 | 0.7 | 20.6 | 0.06 | 0.06 | 0.60 | 0.07 |
| AAV2 | st4SI4 | 80–90 | -0.7 | 3.7 | 0.4 | 18.7 | 0.32 | 0.24 | 2.70 | 0.16 |
| AAV2 | st4SI5 | 90–100 | -0.7 | 4.1 | 8.3 | 60.5 | 1.14 | 1.04 | 7.20 | 0.61 |
| AAV2 | st4SI6 | 100–110 | -0.5 | 4.6 | 128 | 259 | 4.74 | 5.60 | 16.0 | 2.50 |
| AAV2 | st5SI1 | 0–14 | -1.4 | 0.4 | 0.3 | 19.0 | 0.13 | 0.01 | 0.10 | 0.19 |
| AAV2 | st5SI2 | 60–70 | -1.7 | 2.6 | 1.5 | 39.0 | 0.08 | 0.09 | 1.10 | 0.17 |
| AAV2 | st5SI3 | 80–90 | -1.6 | 2.9 | 21.3 | 206 | 0.05 | 0.18 | 1.90 | 0.16 |
| AAV2 | st5SI4 | 100–115 | -1.5 | 2.6 | 22.0 | 98.7 | 0.07 | 0.38 | 1.10 | 0.15 |
| AAV2 | st5SI5 | 115–130 | -0.9 | 3.0 | 48.1 | 124 | 0.18 | 0.62 | 1.50 | 0.26 |
| AAV2 | st5SI6 | 200–215 | -0.5 | 3.1 | 65.7 | 50.3 | 0.23 | 0.22 | 0.40 | 0.10 |
| AAV2 | st6SI1 | 0–20 | -1.8 | 2.2 | 0.8 | 41.4 | 0.52 | 0.17 | 1.30 | 0.43 |
| AAV2 | st6SI2 | 60–70 | -1.7 | 5.9 | 47.2 | 156 | 4.42 | 1.07 | 1.40 | 0.40 |
| AAV2 | st6SI3 | 70–86 | -1.6 | 7.2 | 79.2 | 171 | 7.88 | 1.78 | 2.70 | 0.28 |
| AAV2 | st6SI4 | 86–106 | -1.6 | 4.1 | 95.8 | 206 | 7.27 | 1.29 | 3.80 | 0.36 |
| AAV2 | st6SI5 | 106–126 | -1.1 | 3.5 | 47.7 | 84.0 | 9.53 | 1.07 | 7.10 | 0.25 |
| AAV2 | st6SI6 | 126–138.5 | -1.1 | 3.4 | 34.1 | 51.8 | 8.32 | 0.97 | 6.30 | 0.20 |
| AAV2 | st6SI7 | 138.5-151 | -1.0 | 3.4 | 27.4 | 38.8 | 7.17 | 0.94 | 3.90 | 0.18 |
| AAV2 | st7SI1 | 0–10 | -1.4 | 0.7 | 3.7 | 92.2 | 0.31 | 0.24 | 3.00 | 0.10 |
| AAV2 | st7SI2 | 18–28 | -1.2 | 4.1 | 0.9 | 30.7 | 0.12 | 0.09 | 2.70 | 0.09 |
| AAV2 | st7SI3 | 53–66 | -1.1 | 3.7 | 3.2 | 66.4 | 0.15 | 0.12 | 2.60 | 0.10 |
| AAV2 | st7SI4 | 66–76 | -1.4 | 4.5 | 2.8 | 37.1 | 0.09 | 0.19 | 2.80 | 0.14 |
| AAV2 | st7SI5 | 76–86 | -1.1 | 4.5 | 2.9 | 38.4 | 0.09 | 0.11 | 1.80 | 0.11 |
| AAV2 | st7SI6 | 86–96 | -1.0 | 4.5 | 17.6 | 101 | 0.33 | 0.18 | 1.80 | 0.23 |
| AAV2 | st8SI1 | 0–10 | -1.5 | 1.1 | 0.2 | 10.4 | 0.30 | 0.03 | 1.80 | 0.25 |
| AAV2 | st8SI2 | 12–20 | -1.4 | 0.8 | 0.7 | 17.0 | 0.07 | 0.09 | 1.40 | 0.09 |
| AAV2 | st8SI3 | 35–45 | -1.4 | 3.6 | 1.7 | 50.1 | 0.09 | 0.08 | 0.70 | 0.10 |
| AAV2 | st8SI4 | 65–75 | -1.6 | 2.5 | 1.2 | 36.6 | 0.04 | 0.09 | 0.30 | 0.08 |
| AAV2 | st8SI5 | 102–112 | -1.4 | 3.4 | 5.9 | 43.8 | 0.10 | 0.11 | 0.90 | 0.08 |
| AAV2 | st8SI6 | 122–132 | -1.1 | 3.2 | 4.5 | 38.9 | 0.09 | 0.13 | 0.70 | 0.11 |
| AAV2 | st8SI7 | 132–142 | -0.9 | 2.9 | 12.0 | 161 | 0.25 | 0.36 | 1.30 | 0.24 |
| AAV2 | st9SI1 | 0–10 | -1.5 | 1.5 | 0.3 | 4.1 | 0.32 | 0.02 | 0.70 | 0.27 |
| AAV2 | st9SI2 | 25–40 | -1.5 | 10.5 | 54.9 | 270 | 0.22 | 2.03 | 15.1 | 1.13 |
| AAV2 | st9SI3 | 40–50 | -1.7 | 8.4 | 65.6 | 156 | 0.07 | 0.78 | 14.7 | 0.13 |
| AAV2 | st9SI4 | 80–90 | -1.6 | 5.3 | 6.3 | 17.7 | 1.92 | 0.20 | 6.10 | 0.44 |
| AAV2 | st9SI5 | 160–170 | -1.7 | 3.4 | 4.0 | 10.1 | 1.15 | 0.20 | 3.10 | 0.52 |
| AAV2 | st9SI6 | 170–180 | -1.7 | 3.3 | 5.8 | 19.8 | 0.87 | 0.20 | 2.20 | 0.55 |

**Table S2.** Bulk sea-ice concentrations of dissolved Mes (nM). Concentrations for each section of all stations (Sample ID) encountered along the three field campaigns (Voyage) are listed.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Voyage** | **Sample ID** | **Depth (cm)** | **Cd (nM)** | **Co (nM)** | **Cu (nM)** | **Mn (nM)** | **Ni (nM)** | **Zn (nM)** |
| SIPEX-2 | st2SI1 | 0–9 | 0.44 | < dl | 4.6 | 2.87 | 9.9 | 175 |
| SIPEX-2 | st2SI2 | 9–16 | 0.47 | < dl | 19.7 | 2.44 | 22.3 | 284 |
| SIPEX-2 | st2SI3 | 16–26 | 0.83 | < dl | 17.0 | 2.79 | 14.7 | 543 |
| SIPEX-2 | st2SI4 | 26–33 | 0.55 | < dl | 16.0 | 1.42 | 16.3 | 135 |
| SIPEX-2 | st2SI5 | 61–68 | 0.46 | < dl | 5.7 | 0.47 | 10.0 | 95.9 |
| SIPEX-2 | st2SI6 | 68–75 | 0.82 | < dl | 2.4 | 0.67 | 10.8 | 60.2 |
| SIPEX-2 | st3SI1 | 0–7 | 1.90 | < dl | 2.4 | 8.70 | 7.1 | 189 |
| SIPEX-2 | st3SI2 | 7–15 | 0.67 | < dl | 3.3 | 2.01 | 8.0 | 228 |
| SIPEX-2 | st3SI3 | 34–41 | 0.37 | < dl | 1.8 | 1.10 | 6.3 | 241 |
| SIPEX-2 | st3SI4 | 92–99 | 0.39 | < dl | 0.3 | 0.60 | 2.3 | 33.3 |
| SIPEX-2 | st3SI5 | 129–136 | 0.56 | < dl | 3.6 | 1.56 | 4.4 | 31.9 |
| SIPEX-2 | st3SI6 | 136–143 | 1.57 | < dl | 3.0 | 4.63 | 5.7 | 46.5 |
| SIPEX-2 | st4SI1 | 0–12 | 0.59 | < dl | 24.8 | 2.75 | 533 | 79.5 |
| SIPEX-2 | st4SI2 | 12–24 | 0.43 | < dl | 26.6 | 2.01 | 338 | 137 |
| SIPEX-2 | st4SI3 | 24–34 | 0.47 | < dl | 12.2 | 1.61 | 111 | 39.9 |
| SIPEX-2 | st4SI4 | 34–43.5 | 0.42 | < dl | 17.3 | 1.04 | 200 | 46.2 |
| SIPEX-2 | st4SI5 | 75–83 | 0.29 | < dl | 15.7 | 1.29 | 82.2 | 82.6 |
| SIPEX-2 | st4SI6 | 83–90 | 0.34 | < dl | 5.1 | 0.90 | 49.1 | 32.7 |
| SIPEX-2 | st6SI1 | 0–7 | 0.43 | < dl | 12.0 | 1.21 | 104 | 55.6 |
| SIPEX-2 | st6SI2 | 7–14 | 0.28 | < dl | 5.4 | 0.67 | 19.4 | 61.0 |
| SIPEX-2 | st6SI3 | 21–28 | 0.35 | < dl | 7.0 | 0.81 | 42.8 | 66.6 |
| SIPEX-2 | st6SI4 | 28–35 | 0.18 | < dl | 4.9 | 0.51 | 16.7 | 30.4 |
| SIPEX-2 | st6SI5 | 56–63 | 0.46 | < dl | 14.4 | 1.36 | 23.2 | 40.2 |
| SIPEX-2 | st6SI6 | 63–72 | 0.52 | < dl | 3.6 | 0.96 | 11.6 | 23.5 |
| SIPEX-2 | st7SI1 | 0–7 | 0.61 | < dl | 2.7 | 3.40 | 3.4 | 18.2 |
| SIPEX-2 | st7SI2 | 7–14 | 0.37 | < dl | 1.9 | 1.31 | 2.3 | 14.1 |
| SIPEX-2 | st7SI3 | 14–21 | 0.35 | < dl | 6.0 | 1.48 | 9.5 | 43.7 |
| SIPEX-2 | st7SI4 | 43–50 | 0.55 | < dl | 2.3 | 1.06 | 4.8 | 28.4 |
| SIPEX-2 | st7SI5 | 71–77 | 1.11 | < dl | 7.5 | 3.02 | 11.2 | 50.9 |
| SIPEX-2 | st7SI6 | 78–85 | 0.79 | < dl | 7.2 | 2.49 | 8.6 | 53.8 |
| SIPEX-2 | st8SI1 | 0–7 | 0.38 | < dl | 4.5 | 1.77 | 11.4 | 72.2 |
| SIPEX-2 | st8SI2 | 7–14 | 0.19 | < dl | 12.8 | 1.37 | 27.4 | 160 |
| SIPEX-2 | st8SI3 | 44–51 | 0.38 | < dl | 4.4 | 1.43 | 13.3 | 71.8 |
| SIPEX-2 | st8SI4 | 61–68 | 0.56 | < dl | 3.8 | 1.62 | 10.5 | 68.1 |
| SIPEX-2 | st8SI5 | 81–88 | 0.50 | < dl | 8.9 | 1.95 | 24.7 | 280 |
| SIPEX-2 | st8SI6 | 88–95 | 0.61 | < dl | 6.9 | 3.06 | 20.8 | 313 |
| Davis | st1SI1 | 0–20 | 0.19 | 0.074 | 1.7 | 5.38 | 2.2 | 37.6 |
| Davis | st1SI2 | 20–40 | 0.24 | 0.064 | 2.8 | 1.89 | 2.0 | 46.9 |
| Davis | st1SI3 | 40–130 | 0.32 | 0.044 | 1.7 | 1.55 | 2.0 | 64.2 |
| Davis | st1SI4 | 130–140 | 0.24 | 0.034 | 1.0 | 0.90 | 1.5 | 20.7 |
| Davis | st1SI5 | 140–170 | 0.18 | 0.028 | 0.9 | 1.03 | 1.4 | 22.9 |
| Davis | st1SI6 | 170–175 | 0.43 | 0.063 | 1.7 | 2.78 | 1.9 | 32.1 |
| Davis | st1SI7 | 175–180 | 2.77 | 0.184 | 3.4 | 8.98 | 6.1 | 44.2 |
| Davis | st2SI1 | 0–20 | 0.29 | 0.077 | 2.2 | 3.46 | 2.7 | 58.0 |
| Davis | st2SI2 | 20–40 | 0.23 | 0.059 | 1.7 | 2.03 | 2.1 | 77.1 |
| Davis | st2SI3 | 40–123 | 0.29 | 0.040 | 1.2 | 1.30 | 1.9 | 47.0 |
| Davis | st2SI4 | 123–133 | 0.19 | 0.026 | 0.7 | 0.62 | 1.1 | 13.6 |
| Davis | st2SI5 | 133–163 | 0.14 | 0.037 | 1.0 | 0.91 | 1.3 | 28.4 |
| Davis | st2SI6 | 163–168 | 0.23 | 0.038 | 0.7 | 1.03 | 1.3 | 20.2 |
| Davis | st2SI7 | 168–173 | 2.05 | 0.131 | 3.7 | 14.1 | 7.0 | 30.2 |
| Davis | st3SI1 | 0–20 | 0.22 | 0.083 | 1.9 | 2.47 | 2.1 | 62.3 |
| Davis | st3SI2 | 20–40 | 0.27 | 0.057 | 1.4 | 1.61 | 1.9 | 43.5 |
| Davis | st3SI3 | 40–118 | 0.25 | 0.065 | 1.1 | 1.47 | 1.5 | 42.7 |
| Davis | st3SI4 | 118–128 | 0.15 | 0.053 | 1.1 | 2.09 | 1.0 | 41.3 |
| Davis | st3SI5 | 128–158 | 0.07 | 0.271 | 7.9 | 1.60 | 1.4 | 41.1 |
| Davis | st3SI6 | 158–163 | 0.30 | 0.070 | 6.5 | 2.29 | 2.0 | 50.1 |
| Davis | st3SI7 | 163–168 | 3.72 | 0.287 | 19.5 | 23.1 | 11.7 | 97.6 |
| Davis | st4SI1 | 0–20 | 0.20 | 0.068 | 1.8 | 1.48 | 2.0 | 62.7 |
| Davis | st4SI2 | 20–40 | 0.24 | 0.056 | 2.2 | 1.79 | 1.4 | 36.4 |
| Davis | st4SI3 | 40–128 | 0.19 | 0.051 | 1.9 | 2.42 | 1.7 | 42.9 |
| Davis | st4SI4 | 128–138 | 0.06 | 0.025 | 1.3 | 1.09 | 0.6 | 37.3 |
| Davis | st4SI5 | 138–168 | 0.11 | 0.086 | 5.2 | 2.50 | 2.3 | 50.8 |
| Davis | st4SI6 | 168–173 | 0.28 | 0.071 | 3.4 | 2.58 | 1.5 | 62.6 |
| Davis | st4SI7 | 173–178 | 1.88 | 0.265 | 9.2 | 17.4 | 17.3 | 28.5 |
| Davis | st5SI1 | 0–20 | 0.24 | 0.049 | 1.6 | 1.43 | 1.9 | 42.3 |
| Davis | st5SI2 | 20–40 | 0.23 | 0.029 | 1.2 | 1.00 | 1.5 | 30.8 |
| Davis | st5SI3 | 40–122 | 0.20 | 0.023 | 0.8 | 1.04 | 1.1 | 26.6 |
| Davis | st5SI4 | 122–132 | 0.12 | 0.018 | 1.3 | 1.18 | 0.8 | 19.1 |
| Davis | st5SI5 | 132–162 | 0.06 | 0.019 | 1.0 | 0.58 | 0.4 | 15.3 |
| Davis | st5SI6 | 162–167 | 0.32 | 0.088 | 3.8 | 2.72 | 1.7 | 51.0 |
| Davis | st5SI7 | 167–172 | 3.37 | 0.208 | 7.0 | 16.8 | 8.5 | 74.6 |
| Davis | st6SI1 | 0–20 | 0.17 | 0.031 | 0.9 | 1.52 | 1.2 | 39.3 |
| Davis | st6SI2 | 20–40 | 0.22 | 0.022 | 0.9 | 2.34 | 1.2 | 32.6 |
| Davis | st6SI3 | 40–105 | 0.21 | 0.032 | 1.1 | 1.09 | 1.2 | 32.3 |
| Davis | st6SI4 | 105–115 | 0.12 | 0.018 | 0.8 | 0.86 | 0.7 | 23.1 |
| Davis | st6SI5 | 115–145 | 0.07 | 0.040 | 0.7 | 0.58 | 0.6 | 12.6 |
| Davis | st6SI6 | 145–150 | 0.45 | 0.092 | 1.3 | 2.73 | 2.0 | 26.0 |
| Davis | st6SI7 | 150–155 | 3.43 | 0.369 | 8.3 | 30.0 | 19.3 | 64.1 |
| AAV2 | st1SI1 | 0–12 | 0.08 | 0.060 | 1.9 | 1.63 | 1.6 | 53.0 |
| AAV2 | st1SI2 | 12–20 | 0.12 | 0.021 | 2.8 | 1.55 | 3.2 | 26.0 |
| AAV2 | st1SI3 | 74–84 | 0.12 | 0.018 | 2.0 | 0.56 | 1.3 | 30.0 |
| AAV2 | st1SI4 | 104–114 | 0.16 | 0.013 | 8.4 | 0.43 | 1.7 | 29.1 |
| AAV2 | st1SI5 | 114–124 | 0.18 | 0.010 | 3.0 | 0.62 | 2.0 | 17.0 |
| AAV2 | st1SI6 | 124–132 | 1.00 | 0.017 | 5.0 | 1.61 | 3.0 | 16.7 |
| AAV2 | st2SI1 | 0–12 | 0.04 | 0.030 | 3.4 | 1.26 | 30.8 | 27.9 |
| AAV2 | st2SI2 | 12–20 | 0.08 | 0.112 | 18.7 | 2.74 | 119 | 50.0 |
| AAV2 | st2SI3 | 74–84 | 0.10 | 0.030 | 12.0 | 0.90 | 49.6 | 34.3 |
| AAV2 | st2SI4 | 104–114 | 0.07 | 0.009 | 19.3 | 0.31 | 11.1 | 14.5 |
| AAV2 | st2SI5 | 118–128 | 0.11 | 0.015 | 11.8 | 0.36 | 10.7 | 9.3 |
| AAV2 | st2SI6 | 128–138 | 0.45 | 0.036 | 8.5 | 0.82 | 7.6 | 6.5 |
| AAV2 | st3SI1 | 0–12 | 0.01 | 0.160 | 3.1 | 13.4 | 25.1 | 13.5 |
| AAV2 | st3SI2 | 16–26 | 0.20 | 0.051 | 10.7 | 1.95 | 32.4 | 26.9 |
| AAV2 | st3SI3 | 41–51 | 0.10 | 0.088 | 10.4 | 2.61 | 29.2 | 33.4 |
| AAV2 | st3SI4 | 105–115 | 0.24 | 0.018 | 4.3 | 1.45 | 5.2 | 12.3 |
| AAV2 | st3SI5 | 115–125 | 0.25 | 0.010 | 1.8 | 1.51 | 2.7 | 7.3 |
| AAV2 | st3SI6 | 125–135 | 0.30 | 0.057 | 4.3 | 3.53 | 8.1 | 19.5 |
| AAV2 | st4SI1 | 0–14 | 0.06 | 0.153 | 4.6 | 0.99 | 28.6 | 36.2 |
| AAV2 | st4SI2 | 14–23 | 0.06 | 0.415 | 6.8 | 2.14 | 28.9 | 64.7 |
| AAV2 | st4SI3 | 53–63 | 0.09 | 0.035 | 7.4 | 0.58 | 14.5 | 15.6 |
| AAV2 | st4SI4 | 80–90 | 0.15 | 0.036 | 2.3 | 2.53 | 4.7 | 9.2 |
| AAV2 | st4SI5 | 90–100 | 0.50 | 0.088 | 1.8 | 2.09 | 7.9 | 2.9 |
| AAV2 | st4SI6 | 100–110 | 2.61 | 0.047 | 4.1 | 6.84 | 5.8 | 8.8 |
| AAV2 | st5SI1 | 0–14 | 0.03 | 0.112 | 3.2 | 1.75 | 6.2 | 50.9 |
| AAV2 | st5SI2 | 60–70 | 0.14 | 0.037 | 2.5 | 0.80 | 3.3 | 22.7 |
| AAV2 | st5SI3 | 80–90 | 0.22 | 0.033 | 3.7 | 1.39 | 4.6 | 34.7 |
| AAV2 | st5SI4 | 100–115 | 0.37 | 0.032 | 6.2 | 2.52 | 5.2 | 62.2 |
| AAV2 | st5SI5 | 115–130 | 0.50 | 0.026 | 3.3 | 1.93 | 2.9 | 74.5 |
| AAV2 | st5SI6 | 200–215 | 0.29 | 0.008 | 2.4 | 1.08 | 1.9 | 35.9 |
| AAV2 | st6SI1 | 0–20 | 0.15 | 0.117 | 0.9 | 2.50 | 2.6 | 42.1 |
| AAV2 | st6SI2 | 60–70 | 0.38 | 0.022 | 1.8 | 0.62 | 2.1 | 7.2 |
| AAV2 | st6SI3 | 70–86 | 1.28 | 0.038 | 1.5 | 0.41 | 4.8 | 7.3 |
| AAV2 | st6SI4 | 86–106 | 1.93 | 0.066 | 0.9 | 1.60 | 3.4 | 18.5 |
| AAV2 | st6SI5 | 106–126 | 0.93 | 0.040 | 1.1 | 0.62 | 2.3 | 17.1 |
| AAV2 | st6SI6 | 126–138.5 | 0.95 | 0.060 | 0.8 | 1.90 | 2.0 | 12.4 |
| AAV2 | st6SI7 | 138.5-151 | 0.95 | 0.052 | 0.7 | 1.31 | 1.4 | 15.9 |
| AAV2 | st7SI1 | 0–10 | 0.36 | 0.033 | 4.4 | 2.06 | 5.5 | 23.1 |
| AAV2 | st7SI2 | 18–28 | 0.13 | 0.015 | 3.8 | 1.16 | 5.1 | 14.3 |
| AAV2 | st7SI3 | 53–66 | 0.10 | 0.013 | 0.7 | 0.69 | 1.5 | 2.3 |
| AAV2 | st7SI4 | 66–76 | 0.13 | 0.016 | 1.3 | 0.65 | 1.9 | 3.2 |
| AAV2 | st7SI5 | 76–86 | 0.12 | 0.014 | 2.0 | 0.68 | 1.6 | 6.3 |
| AAV2 | st7SI6 | 86–96 | 0.17 | 0.016 | 4.0 | 0.93 | 2.8 | 5.7 |
| AAV2 | st8SI1 | 0–10 | 0.03 | 0.014 | 0.7 | 0.81 | 2.8 | 39.9 |
| AAV2 | st8SI2 | 12–20 | 0.19 | 0.025 | 0.6 | 0.94 | 4.1 | 21.3 |
| AAV2 | st8SI3 | 35–45 | 0.16 | 0.018 | 2.7 | 0.65 | 3.5 | 19.4 |
| AAV2 | st8SI4 | 65–75 | 0.17 | 0.017 | 3.4 | 0.66 | 4.5 | 38.8 |
| AAV2 | st8SI5 | 102–112 | 0.12 | 0.009 | 2.8 | 0.78 | 9.4 | 8.9 |
| AAV2 | st8SI6 | 122–132 | 0.12 | 0.031 | 5.1 | 0.93 | 3.9 | 16.2 |
| AAV2 | st8SI7 | 132–142 | 0.26 | 0.009 | 1.5 | 1.83 | 3.8 | 6.7 |
| AAV2 | st9SI1 | 0–10 | 0.04 | 0.029 | 1.5 | 2.54 | 32.8 | 79.0 |
| AAV2 | st9SI2 | 25–40 | 0.64 | 0.029 | 1.5 | 2.22 | 16.9 | 16.7 |
| AAV2 | st9SI3 | 40–50 | 1.19 | 0.035 | 1.6 | 2.31 | 5.6 | 20.6 |
| AAV2 | st9SI4 | 80–90 | 0.13 | 0.013 | 1.3 | 1.17 | 2.7 | 34.1 |
| AAV2 | st9SI5 | 160–170 | 0.24 | 0.006 | 3.1 | 0.77 | 2.7 | 15.7 |
| AAV2 | st9SI6 | 170–180 | 0.46 | 0.011 | 3.4 | 1.20 | 2.4 | 17.5 |

< dl: below detection limit

**Table S3.** Bulk sea-ice concentrations of particulate Mes. Concentrations for each section of all stations (Sample ID) encountered along the three field campaigns (Voyage) are listed.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Voyage** | **Sample ID** | **Depth (cm)** | **Al (nM)** | **Cd (nM)** | **Co (nM)** | **Cu (nM)** | **Mn (nM)** | **Ni (nM)** | **Zn (nM)** |
| SIPEX-2 | st2SI1 | 0–9 | 196 | 0.021 | 0.232 | 1.56 | 3.78 | 9.24 | 20.3 |
| SIPEX-2 | st2SI2 | 9–16 | 68.6 | 0.028 | 0.195 | 2.31 | 2.27 | 4.80 | 25.8 |
| SIPEX-2 | st2SI3 | 16–26 | 87.0 | 0.009 | 0.157 | 1.76 | 2.23 | 5.47 | 18.7 |
| SIPEX-2 | st2SI4 | 26–33 | 10.9 | 0.005 | 0.060 | 0.83 | 1.04 | 2.47 | 12.5 |
| SIPEX-2 | st2SI5 | 61–68 | 34.5 | 0.009 | 0.108 | 1.27 | 1.53 | 4.29 | 32.2 |
| SIPEX-2 | st2SI6 | 68–75 | 52.6 | 0.041 | 0.122 | 2.30 | 2.57 | 4.15 | 136 |
| SIPEX-2 | st3SI1 | 0–7 | 116 | 0.004 | 0.028 | 3.53 | 0.49 | 2.09 | 3.07 |
| SIPEX-2 | st3SI2 | 7–15 | 44.3 | 0.001 | 0.016 | 1.23 | 0.28 | 1.92 | 1.96 |
| SIPEX-2 | st3SI3 | 34–41 | 67.3 | 0.001 | 0.047 | 2.89 | 0.39 | 195 | 8.37 |
| SIPEX-2 | st3SI4 | 92–99 | 185 | 0.000 | 0.029 | 1.34 | 1.09 | 1.06 | 0.48 |
| SIPEX-2 | st3SI5 | 129–136 | 25.3 | 0.003 | 0.020 | 6.49 | 0.38 | 2.57 | 2.19 |
| SIPEX-2 | st3SI6 | 136–143 | 109 | 0.002 | 0.020 | 1.02 | 0.37 | 1.41 | 4.65 |
| SIPEX-2 | st4SI1 | 0–12 | 75.3 | 0.003 | 0.029 | 21.3 | 0.60 | 14.0 | 19.3 |
| SIPEX-2 | st4SI2 | 12–24 | 93.3 | 0.010 | 0.073 | 70.4 | 1.30 | 42.3 | 48.3 |
| SIPEX-2 | st4SI3 | 24–34 | 43.0 | 0.011 | 0.026 | 8.30 | 0.51 | 10.1 | 9.97 |
| SIPEX-2 | st4SI4 | 34–43.5 | 0.0 | 0.000 | < 0.001 | 0.01 | < 0.01 | 0.01 | 0.01 |
| SIPEX-2 | st4SI5 | 75–83 | 36.1 | 0.004 | 0.009 | 10.7 | 0.14 | 5.84 | 7.00 |
| SIPEX-2 | st4SI6 | 83–90 | 61.5 | 0.003 | 0.011 | 7.32 | 0.18 | 3.29 | 7.00 |
| SIPEX-2 | st6SI1 | 0–7 | 57.5 | 0.019 | 0.065 | 0.80 | 1.08 | 6.69 | 24.1 |
| SIPEX-2 | st6SI2 | 7–14 | 47.8 | 0.003 | 0.020 | 0.96 | 0.25 | 1.99 | 9.02 |
| SIPEX-2 | st6SI3 | 21–28 | 21.8 | 0.002 | 0.013 | 2.27 | 0.20 | 1.99 | 14.5 |
| SIPEX-2 | st6SI4 | 28–35 | 14.4 | 0.005 | 0.010 | 0.43 | 0.11 | 0.94 | 10.6 |
| SIPEX-2 | st6SI5 | 56–63 | 18.7 | 0.009 | 0.011 | 1.60 | 0.18 | 1.05 | 9.78 |
| SIPEX-2 | st6SI6 | 63–72 | 10.8 | 0.253 | 0.087 | 5.42 | 0.70 | 5.78 | 133 |
| SIPEX-2 | st7SI1 | 0–7 | 78.3 | 0.004 | 0.021 | 1.00 | 0.35 | 1.27 | 2.56 |
| SIPEX-2 | st7SI2 | 7–14 | 47.4 | 0.007 | 0.031 | 1.95 | 0.34 | 3.33 | 5.08 |
| SIPEX-2 | st7SI3 | 14–21 | 90.6 | 0.006 | 0.032 | 3.09 | 0.39 | 1.51 | 18.0 |
| SIPEX-2 | st7SI4 | 43–50 | 181 | 0.017 | 0.077 | 6.30 | 1.18 | 2.25 | 10.4 |
| SIPEX-2 | st7SI5 | 71–77 | 213 | 0.046 | 0.326 | 31.5 | 3.92 | 8.01 | 52.6 |
| SIPEX-2 | st7SI6 | 78–85 | 286 | 0.028 | 0.335 | 37.7 | 4.44 | 7.28 | 54.0 |
| SIPEX-2 | st8SI1 | 0–7 | 66.6 | 0.003 | 0.023 | 1.07 | 0.51 | 1.15 | 2.72 |
| SIPEX-2 | st8SI2 | 7–14 | 125 | 0.002 | 0.037 | 15.2 | 0.70 | 27.1 | 12.4 |
| SIPEX-2 | st8SI3 | 44–51 | 609 | 0.019 | 0.141 | 9.69 | 5.11 | 4.77 | 114 |
| SIPEX-2 | st8SI4 | 61–68 | 406 | 0.035 | 0.116 | 7.50 | 2.77 | 8.26 | 130 |
| SIPEX-2 | st8SI5 | 81–88 | 184 | 0.007 | 0.054 | 8.66 | 0.98 | 6.91 | 90.8 |
| SIPEX-2 | st8SI6 | 88–95 | 405 | 0.010 | 0.060 | 10.8 | 1.57 | 4.35 | 158 |
| Davis | st1SI1 | 0–20 | 11.2 | < dl | 0.491 | < dl | 0.05 | 0.02 | < dl |
| Davis | st1SI2 | 20–40 | 12.4 | < dl | 1.18 | < dl | 0.04 | 0.05 | < dl |
| Davis | st1SI3 | 40–130 | 12.6 | < dl | 0.074 | < dl | 0.07 | 0.09 | < dl |
| Davis | st1SI4 | 130–140 | 5.4 | < dl | 0.101 | < dl | 0.01 | 0.02 | < dl |
| Davis | st1SI5 | 140–170 | 7.3 | < dl | 0.033 | < dl | 0.03 | < dl | < dl |
| Davis | st1SI6 | 170–175 | 23.2 | 0.004 | 0.494 | 0.04 | 0.11 | 0.07 | < dl |
| Davis | st1SI7 | 175–180 | 46.9 | 0.023 | 0.863 | 0.20 | 0.26 | 0.24 | < dl |
| Davis | st2SI1 | 0–20 | 281 | < dl | 2.74 | 0.20 | 1.47 | 0.48 | < dl |
| Davis | st2SI2 | 20–40 | 37.1 | 0.008 | 1.08 | 0.06 | 0.15 | 0.11 | < dl |
| Davis | st2SI3 | 40–123 | 27.3 | < dl | 0.304 | 0.06 | 0.17 | 0.09 | < dl |
| Davis | st2SI4 | 123–133 | 8.2 | < dl | 0.426 | < dl | 0.04 | 0.02 | < dl |
| Davis | st2SI5 | 133–163 | 32.4 | < dl | 0.674 | 0.03 | 0.12 | 0.46 | < dl |
| Davis | st2SI6 | 163–168 | 32.3 | < dl | 1.37 | 0.07 | 0.12 | 0.10 | < dl |
| Davis | st2SI7 | 168–173 | 119 | 0.150 | 4.46 | 1.11 | 0.54 | 1.01 | 10.3 |
| Davis | st3SI1 | 0–20 | 28.4 | < dl | 0.416 | 0.10 | 0.09 | 0.04 | < dl |
| Davis | st3SI2 | 20–40 | 54.0 | 0.008 | 0.718 | 0.25 | 0.12 | 0.32 | < dl |
| Davis | st3SI3 | 40–118 | 3.0 | < dl | 0.016 | < dl | 0.01 | 0.02 | < dl |
| Davis | st3SI4 | 118–128 | 8.3 | < dl | 0.138 | 0.03 | 0.04 | 0.04 | < dl |
| Davis | st3SI5 | 128–158 | 106 | < dl | 1.47 | 0.36 | 0.12 | 0.07 | < dl |
| Davis | st3SI6 | 158–163 | 578 | < dl | 1.93 | 3.88 | 0.43 | 0.19 | 2.83 |
| Davis | st3SI7 | 163–168 | 724 | 0.068 | 0.777 | 5.90 | 0.61 | 0.46 | 7.54 |
| Davis | st4SI1 | 0–20 | 351 | 0.007 | 3.17 | 0.47 | 1.38 | 0.40 | 3.35 |
| Davis | st4SI2 | 20–40 | 1060 | 0.070 | 4.76 | 2.07 | 0.57 | 0.30 | 15.7 |
| Davis | st4SI3 | 40–128 | 210 | 0.019 | 0.191 | 0.38 | 0.20 | 0.18 | 2.37 |
| Davis | st4SI4 | 128–138 | 869 | 0.010 | 3.35 | 1.38 | 0.51 | 0.30 | 7.21 |
| Davis | st4SI5 | 138–168 | 45.7 | < dl | 0.224 | 0.05 | 0.09 | 0.04 | < dl |
| Davis | st4SI6 | 168–173 | 281 | 0.025 | 0.682 | 0.66 | 0.46 | 0.26 | 8.51 |
| Davis | st4SI7 | 173–178 | 2490 | 2.528 | 6.62 | 14.2 | 15.6 | 7.46 | 168 |
| Davis | st5SI1 | 0–20 | 134 | 0.006 | 0.896 | 0.21 | 0.32 | 0.27 | < dl |
| Davis | st5SI2 | 20–40 | 235 | 0.041 | 1.60 | 0.49 | 0.29 | 0.35 | 6.58 |
| Davis | st5SI3 | 40–122 | 68.2 | 0.022 | 0.162 | 0.14 | 0.12 | 0.10 | < dl |
| Davis | st5SI4 | 122–132 | 465 | < dl | 0.598 | 0.92 | 0.33 | 0.18 | 6.83 |
| Davis | st5SI5 | 132–162 | 14.3 | < dl | 0.022 | < dl | 0.04 | < dl | < dl |
| Davis | st5SI6 | 162–167 | 1860 | 0.017 | 3.47 | 4.89 | 0.99 | 0.48 | 19.8 |
| Davis | st5SI7 | 167–172 | 2010 | 0.572 | 1.53 | 5.45 | 1.29 | 1.33 | 53.5 |
| Davis | st6SI1 | 0–20 | 147 | 0.051 | 1.04 | 0.15 | 0.48 | 0.19 | 6.38 |
| Davis | st6SI2 | 20–40 | 162 | 0.025 | 1.64 | 0.32 | 0.29 | 0.17 | 7.03 |
| Davis | st6SI3 | 40–105 | 121 | 0.016 | 0.099 | 0.26 | 0.14 | 0.11 | < dl |
| Davis | st6SI4 | 105–115 | 49.0 | < dl | 0.328 | 0.08 | 0.06 | 0.06 | < dl |
| Davis | st6SI5 | 115–145 | 26.0 | < dl | 0.118 | 0.04 | 0.04 | 0.02 | < dl |
| Davis | st6SI6 | 145–150 | 165 | 0.037 | 1.31 | 0.85 | 0.35 | 0.40 | 10.3 |
| Davis | st6SI7 | 150–155 | 1020 | 1.320 | 2.67 | 10.4 | 1.94 | 4.95 | 117 |
| AAV2 | st1SI1 | 0–12 | 566 | 0.019 | 0.077 | 0.82 | 3.55 | 1.37 | 2.49 |
| AAV2 | st1SI2 | 12–20 | 40.6 | 0.009 | 0.013 | 0.93 | 0.33 | 1.17 | < dl |
| AAV2 | st1SI3 | 74–84 | 279 | 0.044 | 0.041 | 0.69 | 2.24 | 2.03 | 13.3 |
| AAV2 | st1SI4 | 104–114 | 695 | 0.027 | 0.066 | 3.27 | 4.26 | 1.28 | 3.02 |
| AAV2 | st1SI5 | 114–124 | 115 | 0.044 | 0.018 | 0.83 | 0.80 | 0.75 | < dl |
| AAV2 | st1SI6 | 124–132 | 256 | 0.203 | 0.047 | 1.09 | 3.66 | 1.54 | 14.8 |
| AAV2 | st2SI1 | 0–12 | 88.5 | 0.003 | 0.014 | 0.95 | 0.55 | 0.81 | < dl |
| AAV2 | st2SI2 | 12–20 | 44.7 | 0.025 | 0.019 | 3.91 | 0.46 | 3.02 | 2.08 |
| AAV2 | st2SI3 | 74–84 | 129 | 0.012 | 0.027 | 4.48 | 1.06 | 4.94 | 2.15 |
| AAV2 | st2SI4 | 104–114 | 83.6 | 0.006 | 0.016 | 3.23 | 0.88 | 2.04 | < dl |
| AAV2 | st2SI5 | 118–128 | 180 | 0.022 | 0.024 | 2.19 | 1.28 | 3.03 | 5.38 |
| AAV2 | st2SI6 | 128–138 | 49.5 | 0.133 | 0.015 | 1.19 | 0.83 | 1.38 | 4.80 |
| AAV2 | st3SI1 | 0–12 | 19.7 | 0.001 | 0.004 | 0.13 | 1.19 | 0.57 | < dl |
| AAV2 | st3SI2 | 16–26 | 27.4 | 0.036 | 0.014 | 3.50 | 0.38 | 1.87 | 2.87 |
| AAV2 | st3SI3 | 41–51 | 22.5 | 0.015 | 0.008 | 1.72 | 0.24 | 1.39 | 1.88 |
| AAV2 | st3SI4 | 105–115 | 6.1 | 0.027 | 0.005 | 0.71 | 0.08 | 0.67 | < dl |
| AAV2 | st3SI5 | 115–125 | 3.5 | 0.032 | 0.003 | 0.29 | 0.08 | 0.28 | < dl |
| AAV2 | st3SI6 | 125–135 | 7.2 | 0.021 | 0.008 | 0.68 | 0.13 | 0.73 | < dl |
| AAV2 | st4SI1 | 0–14 | 204 | 0.002 | 0.120 | 1.26 | 1.20 | 0.75 | < dl |
| AAV2 | st4SI2 | 14–23 | 556 | 0.008 | 0.303 | 2.60 | 3.39 | 1.66 | 2.43 |
| AAV2 | st4SI3 | 53–63 | 234 | 0.017 | 0.026 | 0.75 | 1.47 | 0.35 | < dl |
| AAV2 | st4SI4 | 80–90 | 6280 | 0.054 | 0.625 | 1.76 | 41.8 | 1.39 | 9.32 |
| AAV2 | st4SI5 | 90–100 | 16300 | 0.478 | 1.46 | 2.49 | 91.9 | 4.23 | 31.2 |
| AAV2 | st4SI6 | 100–110 | 13100 | 2.768 | 1.65 | 4.25 | 113 | 6.15 | 73.4 |
| AAV2 | st5SI1 | 0–14 | 94.7 | 0.001 | 0.360 | 0.57 | 0.47 | 0.51 | < dl |
| AAV2 | st5SI2 | 60–70 | 231 | 0.024 | 0.030 | 0.96 | 0.79 | 0.68 | < dl |
| AAV2 | st5SI3 | 80–90 | 297 | 0.017 | 0.041 | 2.34 | 1.25 | 0.99 | 1.76 |
| AAV2 | st5SI4 | 100–115 | 344 | 0.034 | 0.061 | 2.97 | 1.54 | 8.46 | 3.29 |
| AAV2 | st5SI5 | 115–130 | 277 | 0.035 | 0.093 | 7.44 | 1.68 | 1.90 | 10.2 |
| AAV2 | st5SI6 | 200–215 | 33.7 | 0.031 | 0.007 | 0.55 | 0.16 | 0.81 | 1.28 |
| AAV2 | st6SI1 | 0–20 | 53.6 | 0.018 | 0.032 | 0.32 | 0.38 | 0.89 | 1.71 |
| AAV2 | st6SI2 | 60–70 | 367 | 0.438 | 1.90 | 1.15 | 2.81 | 1.65 | 25.6 |
| AAV2 | st6SI3 | 70–86 | 190 | 1.780 | 0.632 | 1.00 | 1.20 | 2.87 | 22.3 |
| AAV2 | st6SI4 | 86–106 | - | - | - | - | - | - | - |
| AAV2 | st6SI5 | 106–126 | 146 | 0.394 | 0.477 | 0.62 | 0.67 | 0.72 | 9.41 |
| AAV2 | st6SI6 | 126–138.5 | 281 | 0.276 | 2.36 | 0.72 | 1.17 | 0.61 | 6.29 |
| AAV2 | st6SI7 | 138.5-151 | 40.6 | 0.127 | 0.206 | 0.45 | 0.50 | 4.04 | 3.11 |
| AAV2 | st7SI1 | 0–10 | 41.5 | 0.088 | 0.185 | 1.04 | 0.67 | 1.28 | 1.57 |
| AAV2 | st7SI2 | 18–28 | 16.2 | 0.022 | 0.006 | 0.75 | 0.23 | 0.32 | < dl |
| AAV2 | st7SI3 | 53–66 | 70.9 | 0.023 | 0.012 | 0.13 | 0.38 | 0.17 | < dl |
| AAV2 | st7SI4 | 66–76 | 115 | 0.059 | 0.021 | 0.26 | 0.79 | 0.41 | 2.48 |
| AAV2 | st7SI5 | 76–86 | 17.0 | 0.031 | 0.005 | 0.38 | 0.21 | 0.22 | < dl |
| AAV2 | st7SI6 | 86–96 | 43.5 | 0.070 | 0.011 | 1.22 | 0.39 | 0.67 | 2.78 |
| AAV2 | st8SI1 | 0–10 | 28.6 | 0.001 | 0.030 | 0.11 | 0.46 | 0.84 |  < dl |
| AAV2 | st8SI2 | 12–20 | 27.7 | 0.059 | 0.047 | 0.15 | 0.28 | 0.38 | 1.43 |
| AAV2 | st8SI3 | 35–45 | 32.0 | 0.027 | 0.011 | 0.52 | 0.25 | 0.47 | < dl |
| AAV2 | st8SI4 | 65–75 | 67.4 | 0.031 | 0.035 | 1.74 | 0.74 | 3.25 | 2.18 |
| AAV2 | st8SI5 | 102–112 | 425 | 0.046 | 0.054 | 1.55 | 2.20 | 1.07 | 3.73 |
| AAV2 | st8SI6 | 122–132 | 262 | 0.026 | 0.045 | 1.51 | 1.79 | 1.11 | 6.38 |
| AAV2 | st8SI7 | 132–142 | 1170 | 0.066 | 0.224 | 1.06 | 10.2 | 1.05 | 5.17 |

< dl: below detection limit