

Dynamic mercury methylation and demethylation in oligotrophic marine water

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Supplement

Contents:

Figure S1: Normalized initial methylation rates of Hg(II) in Tropical Pacific waters

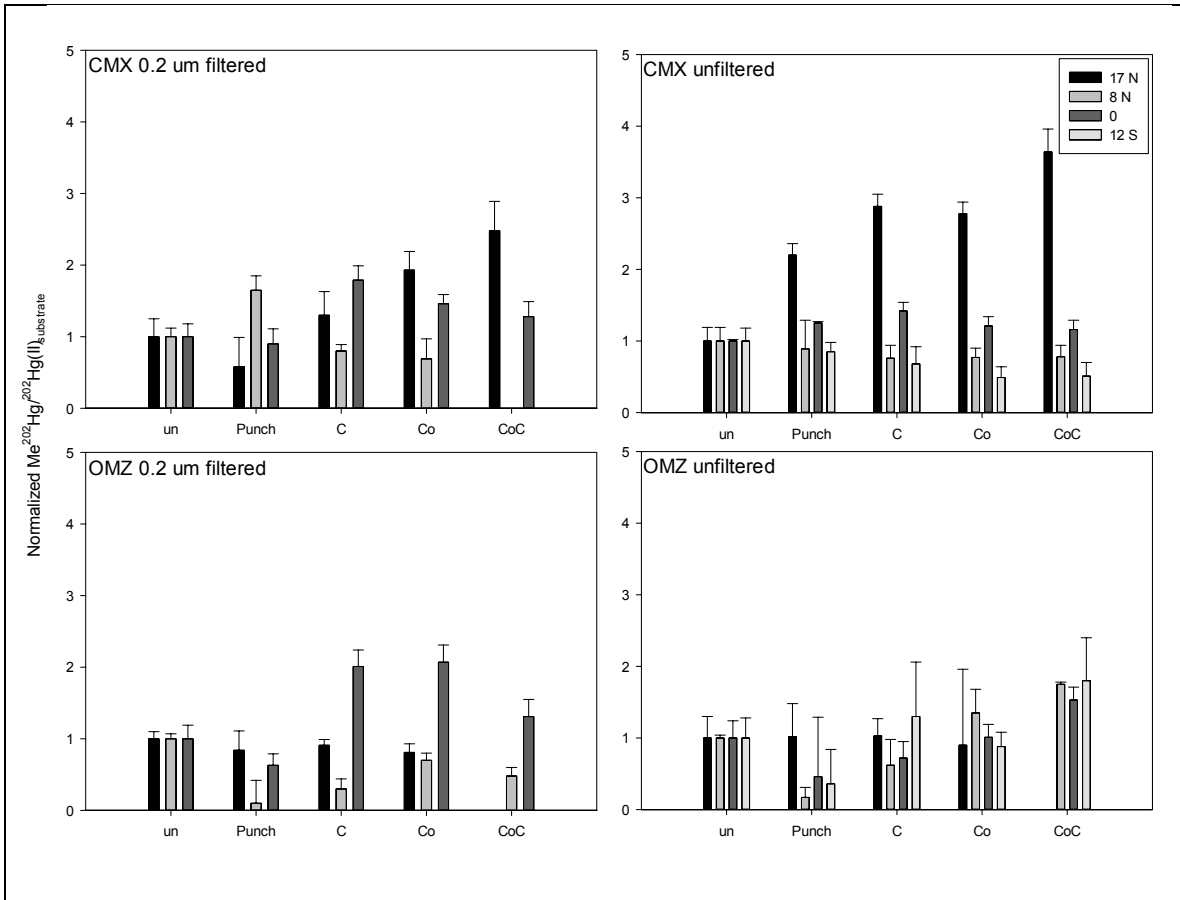
Figure S2: Calculated Hg(II) from full dissolved Hg speciation of Tropical Pacific waters

Figure S3: Organic matter remineralization rates (OCR) from incubation stations

Table S1: Suspended particulate matter total Hg (THg) added as punch treatments to incubations

Figure S1: Normalized initial methylation rates of Hg(II) in Tropical Pacific waters. Methylation rates normalized to unamended (un) water from the chlorophyll maxima (a, b) and oxygen minima (c, d) at t 0 h time point. Treatments are abbreviated as follows: McLane pump filter sections (punch), succinate (C), cobalt (Co), cobalt and succinate (CoC), McLane pump sections. The error bars represent one standard deviation from triplicate incubation bottles.

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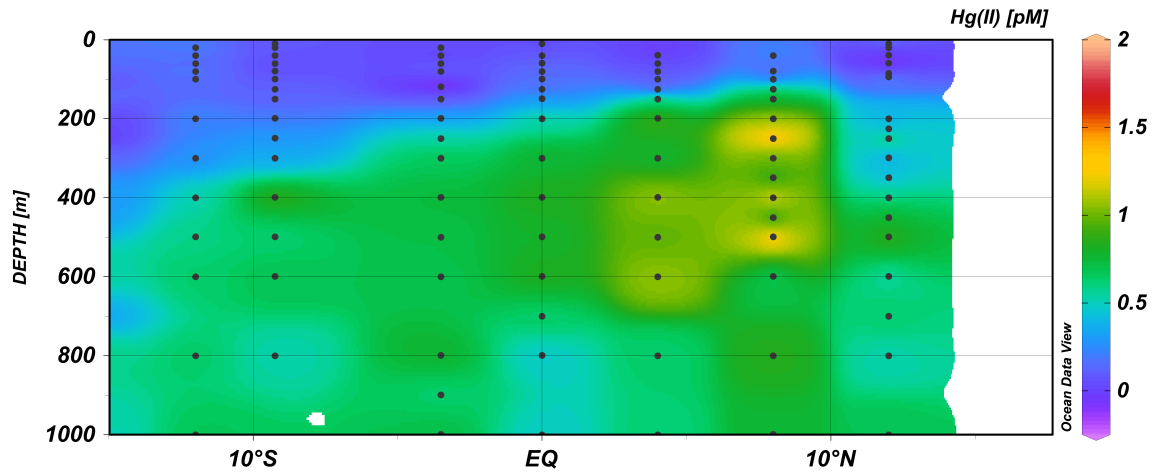
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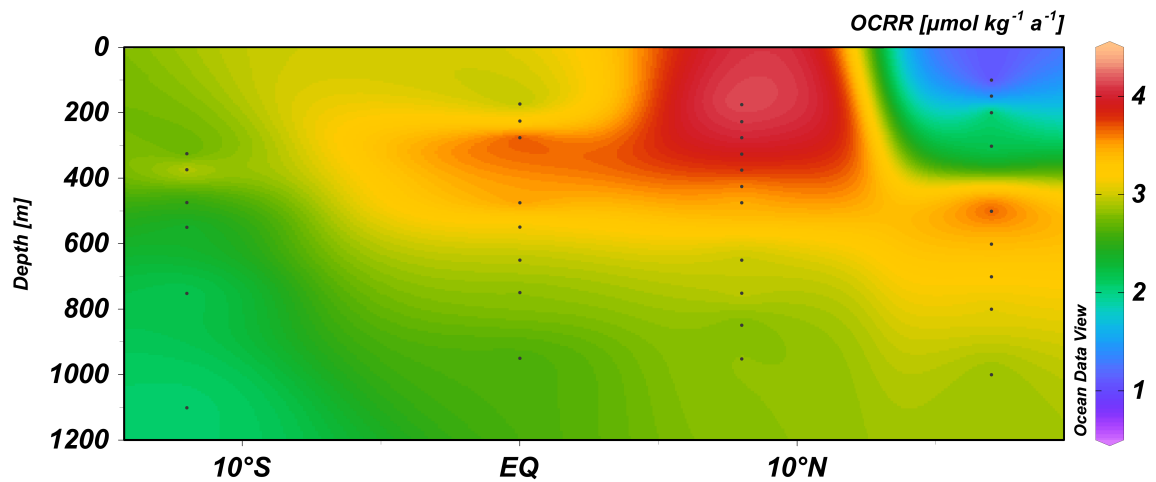
Figure S2: Calculated Hg(II) from full dissolved Hg speciation of Tropical Pacific waters.

65 Concentrations of [Hg(II)] calculated as the difference from Metzyme cruise transect stations according to Eq 1 in main text.



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Figure S3: Organic matter remineralization rates (OCRR) from incubation stations. OCRR values for incubation stations between 17 °N and 12 °S. All CFC ages provided by John Bullister as reported by Munson et al, 2015 (Fig. 8)



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85 **Table S1: Suspended particulate matter total Hg (THg) added as punch treatments to incubations.**

Total mercury (Hg) added to amended incubation bottles from suspended particulate matter collection with *in situ* pumps (14).

Station	Hg added in filter punch (pmol)
17 °N	0.70
8 ° N	1.05
0 °	0.53
12 °S	0.35

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