Biogeosciences

Discussions

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Supplement of

Seasonal methane accumulation and release from a gas emission site in the central North Sea

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The MOx values were corrected for differences between in situ and incubation temperatures using a temperature coefficient Q_{10} of 1.6 (unpublished data of a North Sea sample) and Eq. 1:

$$Q_{10} = \left(\frac{R_2}{R_1}\right)^{\left(\frac{10}{T_2 - T_1}\right)} \tag{1}$$

where $R1$ is the reaction rate measured at temperature $T1$ and $R2$ the rate measured at temperature $T2$ ($T1 < T2$). Due to the temperature differences the measured rates are 11-16% higher or lower than in situ rates depending if the incubation temperature was higher or lower than the in situ temperature.
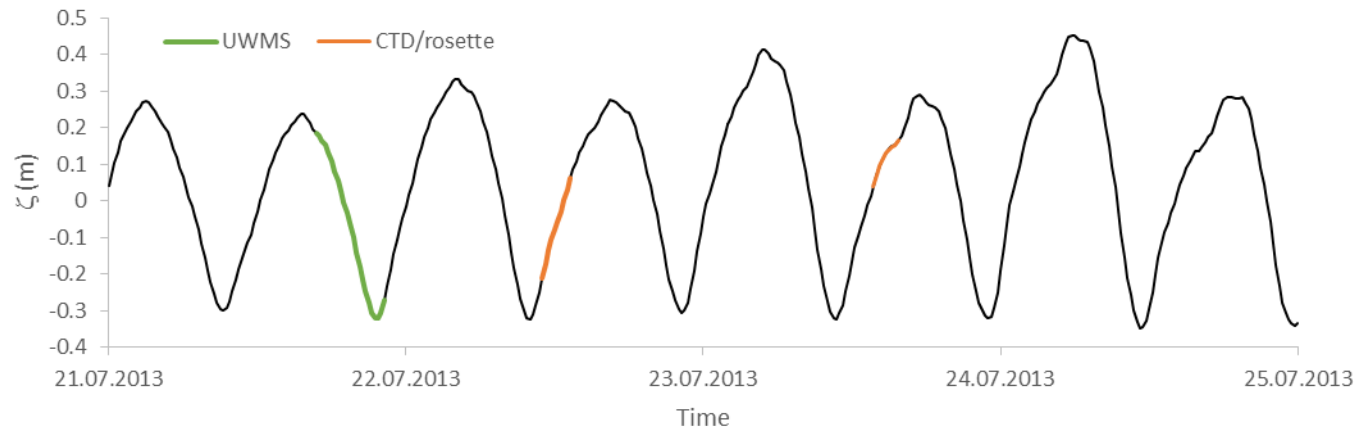
Figure S1: Sea level height (ζ) during deployment of UWMS and CTD/rosette.