1   **Supplementary Material (SM) For:**

2   # Characterization of the Particle Emission from Ships Operating
3   # at Sea Using Unmanned Aerial Vehicles

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11   The DISCmini was compared with a reference CPC (TSI 3772) for ambient measurements onboard the
12   ship over a period of several hours. Linear regression of the data with an intercept set at origin resulted
13   in an R^2 value of 0.982. This regression equation was used to correct DISCmini concentrations in
14   emission factor calculations.
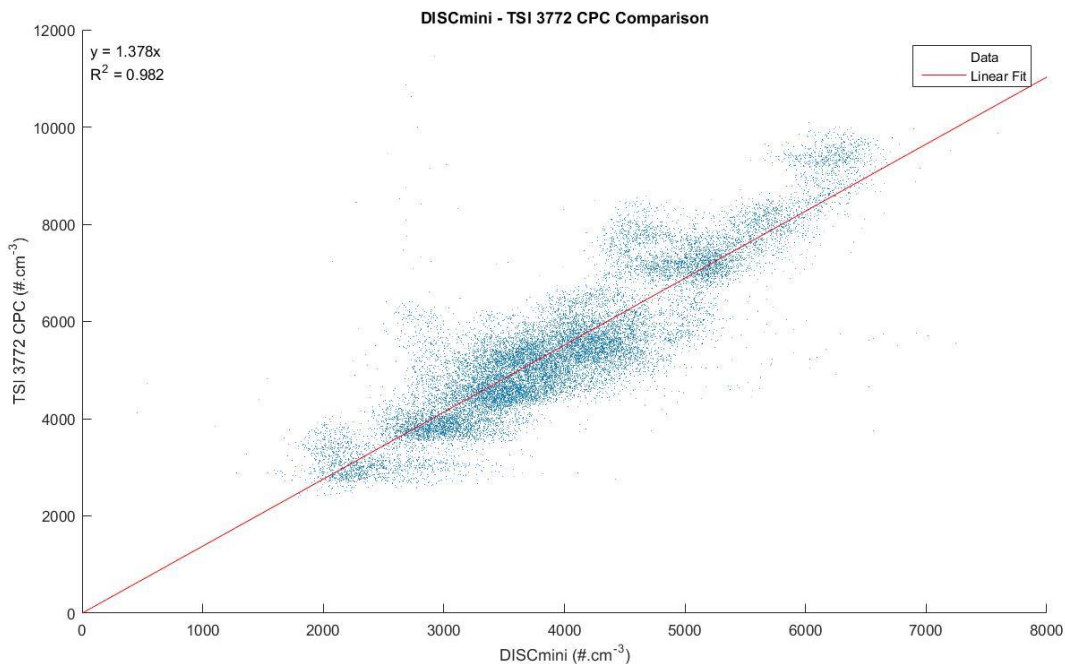
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16   **Figure S1: Comparison of the DISCmini with the CPC in the aerosol laboratory onboard the investigator.**

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18   The IAQ-calc 7545 was compared with a PICARRO Greenhouse Gas Analyzer for ambient measurements
19   onboard the ship over a period of several hours. It was found there was a positive offset of 93 ± 2 ppm
20   (standard error) of between the two measurements.

IAQ-calc 7545 - PICARRO Comparison
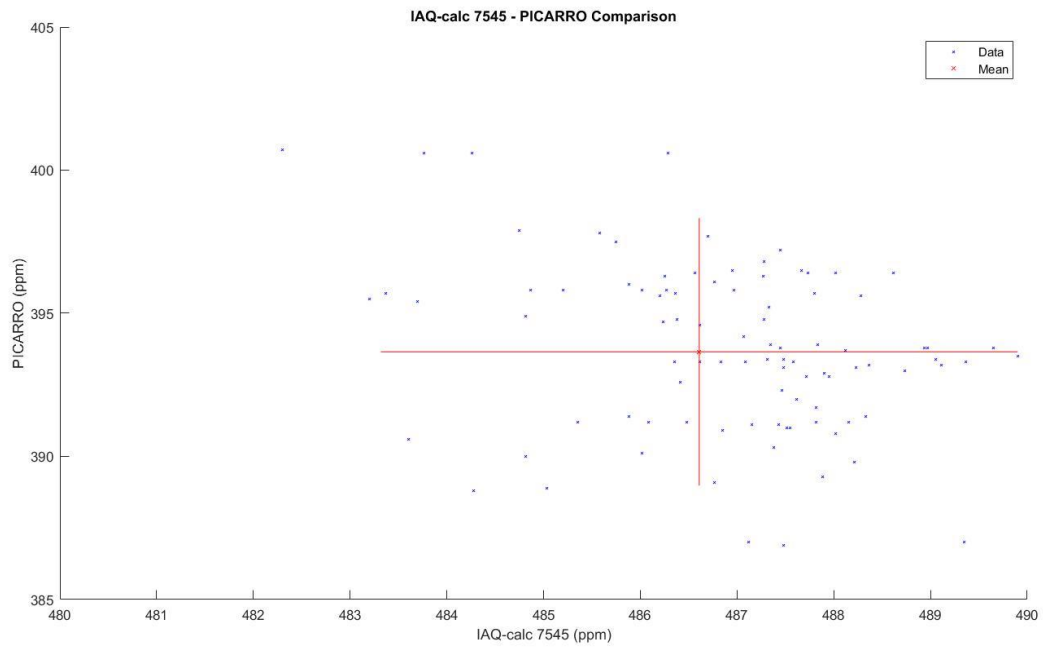
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22   **Figure S2: Comparison of the IAQ-calc 7545 with the PICARO in the aerosol laboratory onboard the investigator. Bars**
23   **indicate the 95% confidence interval around the mean.**