

# ***Interactive comment on “Field test of available methods to measure remotely SO<sub>2</sub> and NO<sub>x</sub> emissions from ships” by J. M. Balzani Lööv et al.***

**Anonymous Referee #1**

Received and published: 8 January 2014

Page 14, line 22 – 23: Decimal separator is missing: 300.094 nm and 299.752 nm

- 1) Page 22 Lines 23 – 25: The difference on results of FSC between sniffing method and direct stack measurements differ from each but still overlapping with the standard deviation included: Sniffing:  $0.86 \pm 0.23\%$  and stack meas:  $1.2 \pm 0.15\%$ . The use of MDO in harbour areas would decrease the FSC value but it does not show in stack measurements?
- 2) There is relatively good agreement with the FSC measured by different techniques in the harbor areas: Sniffing from land:  $0.86 \pm 0.23\%$ , from stack:  $1.2 \pm 0.15\%$  and from mobile platform:  $1.13 \pm 0.18\%$ . You could comment this more clearly in Conclusion.
- 3) The uncertainty of the sniffing method is very important result to estimate the accu-

racy of the method. One could apply the “law of propagation of error” in equation on page 12, line 13. The authors built the uncertainty of the sniffing method based on the results from two different heights. From Figure 4, first diagram, it seems to justify this in a quite wide range. There are quite a many points in the range of 0.1 % of FSC: Does these deviations from the regression line support the estimation of 60 % of uncertainty at 0.1 % of SFC.

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Interactive comment on *Atmos. Meas. Tech. Discuss.*, 6, 9735, 2013.

**AMTD**

6, C3930–C3931, 2014

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