

Interactive comment on “Gas phase acid, ammonia and aerosol ionic and trace element concentrations at Cape Verde during the Reactive Halogens in the Marine Boundary Layer (RHAMBLE) 2007 intensive sampling period” by R. Sander et al.

R. Sander et al.

rolf.sander@mpic.de

Received and published: 31 October 2013

We thank the anonymous reviewer for his/her comments (shown below in italics). Our replies are embedded:

C158

page-370, lines 18-20: One would presume that 10% precision is for high concentrations and 25% for low concentrations, however, it is better to define here that what concentration range corresponds to what precision level? When DL is given for individual species then what is "average" DL? Write a line about it.

We have replaced the original text with the following:

“Detection limits (DLs; estimated following Keene et al., 1989) for HCl, HNO₃, NH₃, HCOOH, and CH₃COOH were 26, 12, 3, 29, and 44 pmol/mol, respectively. The corresponding precision for each analyte is approximately one half of the estimated DL.”

Page-386, Fig.6: Make the X-axis values clearly visible. One can write alternate days or, write the date as given in Fig. 7. In X-axes labels, Cl is written as CL, correct it.

We agree and we have improved the plots as requested.

Page-385, Fig.7: While writing EFCl, EFBr, and Br_g, use Cl, Br, and g as subscript.

We have changed the “g” in Br_g to a subscript. For EFCl and EFBr, we did not introduce subscripts but for consistency with the text changed them to EF(Cl) and EF(Br), respectively.

Page-386, Fig.8 For some elements, why detection limit (shown by red line) is different for the samples collected before May 24th. Include this information in figure caption.

C159

Analysis of blanks clearly indicated quite different mean amounts and variances of some species in filters used during the early part of the campaign compared to those used the rest of the time. We added the following text to the figure caption:

“The different detection limits reflect different blank mean amounts and variances in filters used during early vs. later portions of the campaign.”

Page-388, Fig.10: Axes labels are written in capital letters. It look better to see NA, CL, BRG etc as Na, Cl, Br superscript(g). Also, the font size of r2 values is too small. Make it visible.

We agree and we have improved the plots as requested.

Interactive comment on Earth Syst. Sci. Data Discuss., 6, 367, 2013.