

Interactive comment on “Iodine monoxide in the Western Pacific marine boundary layer” by K. Großmann et al.

Anonymous Referee #2

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Review of “Iodine monoxide in the Western Pacific marine boundary layer”

By Großmann et al.

This manuscript presents an interesting set of ship-based MAX-DOAS iodine oxide measurements over the Western Pacific, which further supports the presence of IO over the open ocean MBL as also reported by previous studies. The combination of IO and organic iodine precursor measurements, and photochemical modelling allow the authors to conclude that iodocarbons are not sufficient to explain the observed IO.

I feel that the paper is suitable for publication after some changes, in addition to those reported by other reviewers, which have been detailed below.

Page 27482, line 18: What is the principle of the DOASIS software for calculating the
C10925

Ring cross-section? How does that software calculate the Ring spectrum? It doesn't appear in the associated reference.

Page 7262: Detail the cloud filter used.

Page 27491: How much can the measurements under rainy conditions be trusted?, please provide details to make the comparison with clear sky days meaningful.

Page 27492: When comparing IUP Bremen versus Heildeberg, Did the two instruments have the same line-of-sight onboard the ship?. Did IUP Heidelberg try a single daily zenith Fraunhofer spectrum for comparison?

Figures:

Please increase the size of axis ticks in Figure 9.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 27475, 2012.