

Interactive comment on “In situ measurements of molecular iodine in the marine boundary layer: the link to macroalgae and the implications for O₃, IO, OIO and NO_x” by R.-J. Huang et al.

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I also agree with Terry Dillon and the authors of this paper about the general need of revitalising lab studies on Atmospheric Chemistry. Indeed it is only through the combination of lab and theoretical work that we can solve the discrepancies on the iodine atom quantum yield from OIO photolysis. The observation, or not, of OIO in the MBL can only add as circumstantial evidence, specially given the inconsistencies of state of the art OIO atmospheric detection. Nevertheless, I would like to point out that to date the only claim of unambiguous daytime OIO is that of Stutz et al. (2007), whereas Peters et al. (2005) states that “OIO at Mace Head was only clearly observed for short

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periods during two nights [evenings] of the 1998 experiment, during other times OIO remained below the detection limit” (p. 3373), and Saiz-Lopez et al. (2004 and 2006) and Mahajan et al. (2009) did observe OIO above the instrumental detection limit only during the night-time and never in the daytime. Besides these studies in coastal environments, OIO has not been detected in the presence of sunlight in Antarctica, where the daytime IO mixing ratios peak as high as 20 ppt (Saiz-Lopez et al., 2007)

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 361, 2010.

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