

Interactive comment on “Simultaneous coastal measurements of ozone deposition fluxes and iodine-mediated particle emission fluxes with subsequent CCN formation” by J. D. Whitehead et al.

Anonymous Referee #3

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Review of Whitehead et al., Atmos. Chem. Phys. Discuss., 9, 20567–20597, 2009

This work presents eddy correlation flux measurements of ozone and iodine-mediated particles at a coastal site in France. The site provides a very suitable location for such measurements and correct instrumentation and analysis techniques have been utilised. The work links direct depositional loss and photochemical destruction of ozone to the formation of particles from macroalgal emissions. The paper asserts that the observed continuous growth of particles indicates that these particles most likely grow to sizes capable of acting as CCN.

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It is the opinion of the referee that the manuscript is well written and this work provides valuable input into this important field. Some minor comments are listed below.

1. While it is stated that the instrument boom was capable of being traversed vertically to accommodate the very large changes in tidal height, the resulting sustained measurement height does not appear to be stated.
2. Figure 1. The figure should be edited to ensure the overlay is more clearly discernable.
3. The flux averaging period was 15 minutes. Some other works use a 30 minute averaging period. Can the authors comment on the choice of averaging period and any possible effects of this choice?
4. 20574. Line 22: remove “were”
5. 20578. Line 23: change to “ranged from 0–7.8”
6. There is a significant difference between the two particle flux correlations, but the difference in sites and measurement setup could explain this. The referee agrees that further long-term investigations are required in this area (not necessary for this publication).

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 20567, 2009.

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