

Interactive comment on “Boundary layer new particle formation over East Antarctic sea ice – possible Hg driven nucleation?” by R. S. Humphries et al.

R. S. Humphries et al.

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Received and published: 7 October 2015

Firstly, we would like to thank the reviewer for the thoughtful comments and attention to detail made in their review. A summary of how we addressed each comment is outlined below:

1. This is an important point the review raises and we believe has led to a substantial improvement to the manuscript. Quantified details of the results from the model, with comparison to experimental values, has been added as a new table in the main text. Edits to paragraph 3 and 4 of section 3.6.3 are made to reference and

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discuss the results of the new table.

2. The figures have been carefully reviewed and improved as per the reviewer's suggestion. The following changes have been made:
 - (a) Removed additional tick marks from Figures 2, 3, 8 and A1
 - (b) Made the period indicators of Figure 3, 5, 6 and 8 solid, rather than dashed, lines.
 - (c) Edited labels in various figures to make them internally consistent.
3. Thank you for the attention to detail. The referee was correct in identifying the mislabelled line. This has now been corrected.
4. An additional reference has been added.
5. The “and”, mistakenly left over from previous drafts, was removed from the sentence.
6. Relevant citations for each instrument have been included.

Interactive comment on Atmos. Chem. Phys. Discuss., 15, 19477, 2015.