

Line 56 & 154 (and possibly elsewhere): Writing as '1970s', '1980s' and '1990s' would be regarded as more conventional English.

Changed as requested

Page 8: Please add technical references for the DMA geometries and EUSAAR inlet specification (as distinct from to the overall EUSAAR project), if available.

For the DMA-geometry the related technical reference Reischl (1991) was added. The existing EUSAAR was specified to (http://www.eusaar.net/files/data/data_protocol.cfm).

Line 182: Please refer to "10 nm" rather than "ten nanometres".

Changed as requested

Line 215: Please provide a direct link for the sampling protocol, if available.

I am afraid there is not more available than the existing reference.

Line 375: Please provide details of the specific NSIDC data product used.

The product was added as Sea Ice Concentrations from Nimbus-7 SMMR and DMSP SSM/I-SSMIS Passive Microwave Data

Figure 4: What are the units of the bottom axis? Reposition the colour scale so that it does not obscure the bottom axis label (possibly related to the previous point). Also, specify what base of logarithm is used and what 'relative number concentration' means in the caption.

Thank you for pointing out the flaw in Fig. 4. The bottom axis was nonsense and has been removed and the log is now explained. The 'relative number concentration' is now explained in the caption as 'Relative number concentrations are formed by dividing absolute number concentrations by the average total number during the six-hour pre-event time periods.'

Figure 8: For consistency, I would suggest plotting all the sub-figures on the same colour scale range. However, if the authors feel that some detail would be lost, feel free to leave this as is.

I am afraid some details would be less clear, so we left it as is.

Supplement: Please add a title, author list and affiliations as a header for the supplement.

Done as requested

Literature

Reischl, G. P.: Measurement of ambient aerosols by the differential mobility analyzer method: Concepts and realization criteria for the size range between 2 and 500 nm, *Aerosol Sci. Tech.*, 14, 5-24, 1991.