

Interactive comment on “Ship-based measurements of ice nuclei concentrations over the Arctic, Atlantic, Pacific and Southern Ocean” by André Welti et al.

Anonymous Referee #1

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Review of “Ship-based measurements of ice nuclei concentrations over the Arctic, Atlantic, Pacific and Southern Ocean” by Welti et al.

This paper presents ship-based measurements of the concentration of ice nuclei (IN) from around the globe. Since knowledge of the concentrations of IN in the marine boundary layer is needed for predicting mixed-phase clouds and precipitation, this paper is important and well-suited for publication in ACP. Both new measurements and literature data are summarized, providing an extensive picture of IN concentrations in the marine boundary layer. In total, over 23 months of measurements are included. I expect that this paper will be highly cited, and the results in this paper will be a bench-

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mark for future modelling studies of IN in the atmosphere. Due to the high quality of the writing and the science, I have no comments. This has not happened to me before. I would like to thank the authors for submitting a high-quality manuscript.

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