

Interactive comment on "An AeroCom assessment of black carbon in Arctic snow and sea ice" *by* C. Jiao et al.

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Major comment: The manuscript presents a comprehensive assessment of black carbon from the observed results and the simulated by model cluster of AeroCom project. This work may be useful to modellers for understanding their future work on simulating black carbon results in Arctic.

Specific comments: My little concern is the large paragraph of context in Section 2 Observation data. I strongly suggest the authors to totally remove this section from the manuscript or shorten them into one to two sentences because the authors did not sample snow themselves and totally cited them from the previous work (Doherty et al. 2010). And the sampling and treatment of the samples were very clearly described in

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the abovely mentioned paper. Thus the authors are not proper to describe them in so detailed here. English should be improved. Similar work, but smaller in scale has been published in the same journal by Dou et al., 2012. See Dou, T., Xiao, C., Shindell, D. T., Liu, J., Eleftheriadis, K., Ming, J., and Qin, D.: The distribution of snow black carbon observed in the Arctic and compared to the GISS-PUCCINI model, Atmos. Chem. Phys., 12, 7995-8007, doi:10.5194/acp-12-7995-2012, 2012.

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 26217, 2013.