

As already said, data on bromine and iodine in snow and ice are very welcome since they are still rather rare and are potentially interesting for a better understanding of the halogen chemistry at high southern latitudes in the past, for instance.

In the revised version, the authors considered most of my comments and suggestions. I appreciated that the estimates of excess bromine relative to sodium with respect to seawater composition are now shown. I therefore recommend it for publication. I just recommend the following clarification in the abstract.

First sentence of the abstract “Halogen chemistry in the polar regions occurs through the release of sea salt aerosols and other saline condensed phases from sea ice surfaces and organic compounds from algae colonies living within the sea ice environment.” needs to be reworded since algae colonies are thought to influence iodine (not bromine) and conversely saline condensed phases are important for bromine (not iodine).

I think you can remove the last sentence of the abstract “The flux measurements are consistent with the uniform values of BrO and IO concentrations detected from satellites over the traverse area.” I think that, since BrO is only a small fraction of the bromine family (most of them being water soluble and able to contribute to bromine present in snow), it is quite very dangerous to rely snow deposition of bromine and satellite BrO observations.

End of the review