



## **Evidence for the emission of reactive halocarbons from open leads in Arctic seaice during COBRA**

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Recent observations of reactive iodine in the Antarctic boundary layer show that polar sources of iodine must be significant. The nature and formation of such iodine precursors are currently unknown. Very short lived halocarbons (mono-, di- and tri- halogenated organics) containing iodine are one possibility – these are rapidly photolysed (290-350nm) within the polar boundary layer. Current research suggests both biotic and abiotic sources of halocarbons in polar regions. During the COBRA (Impact of COmbined Bromine and Iodine Release on the Arctic atmosphere) campaign at Kuujjuarapik on the east coast of Hudson bay (55.30°N, 77.73°W), measurements during Feb-Mar 2008 in air and throughout the sea-ice suggest that biological production of reactive halocarbons on the bottom of sea-ice is significant, and that these gaseous emissions are predominantly vented from open leads. Here we discuss the implications of these results.