



## **Accumulation and chemical impurities in Greenland over the past 1800 years**

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A common snow accumulation record for the Greenland Ice Sheet has been constructed from several absolutely dated ice cores covering the past 1800 years. The record was constructed with 5 years resolution in a manner to optimize the signal to noise ratio. We have compared this data set with Greenland ice core records of chemical impurities. Around year 1400 AD a sharp increase in snow accumulation rate is observed. This feature is also reflected in the ice concentrations of sea salt and dust. Another feature in the record is increased variability for a few centuries around year 1000 AD, which is also seen in the sea salt record but not in dust data. This points to a regional North Atlantic phenomenon, which is supported by findings from sediments cores from the Igaliku Fjord in Southern Greenland.