

A Holocene dust concentration record from the new greenlandic NEEM ice core - Preliminary results

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The North Greenland Eemian Ice Drilling - NEEM - is an international ice core research project aimed at retrieving an ice core from North-West Greenland (77.45°N 51.06°W) reaching back through the previous interglacial, the Eemian. During the summer season 2009 Continuous Flow Analysis (CFA) measurements were conducted in the field and reached down to 600 m, the upper end of the brittle zone. Using a laser particle counter a continuous record of dust concentration and size was retrieved in 1.10 m resolution. This presents the first continuous Holocene dust record from a Greenland ice core.

Dust deposited on the Greenlandic ice sheet originates from the East Asian deserts (Bory et al., 2003) and offers a direct link between the monsoon system in East Asia and the North Atlantic climate system (Ruth et al., 2007). Here we present preliminary dust concentration and size data from the upper 600 m of the NEEM ice core in 1.10 m resolution.