

Interactive comment on “Trace elements and cathodoluminescence of detrital quartz in Arctic marine sediments – a new ice-rafted debris provenance proxy” by A. Müller and J. Knies

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Dear authors, The open discussion phase of your manuscript has been closed. As a reminder, you are now requested to answer both referees' comments in a cumulative Final Response, a step which is compulsory before allowing for the submission of the revised manuscript. When preparing the Final Response, please pay attention to some of the most important points raised by the referees: (1) Consider including a short literature review on previous investigations of IRD sources in the Svalbard area (including sediment trap investigations), as well as some key references listed by referee n°1. (2) Analytical procedure: you may provide some information on how time-

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and cost-effective this new analytical method is, and to what extent it might be applied successfully to a wider geographical context. (3) a common request lays in the need for a clearer explanation of the criteria used for the classification of the quartz grains into 5 distinct groups, as well as (if possible) on the implementation of statistical tests confirming the distinct origins of these quartz groups. Statistical analyses are also suggested in order to infer the most probable source of offshore materials (see referee n°2) (4) some confusing quartz signatures in samples 1265, 1244, and 1246 should be commented.

Interactive comment on Clim. Past Discuss., 9, 4145, 2013.

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