



## **Relative paleointensity of geomagnetic field recorded by glaciomarine sediments in Prydz Bay as a potential time-marker**

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Glaciomarine sediments in Antarctica are notoriously known to be poorly dated in glacial-interglacial scales because of scarcity of calcareous foraminifera and variable old carbon input to the bulk sediment both of which hinder the use of AMS dating. Therefore relative paleointensity of geomagnetic field (RPI) from these cores are obtained to produce this inference. The results show that the abyssal (>2000 m) cores present comparative features of RPIs with PISO1500, the global geomagnetic field variation for the last 1500 ka, while conditions are much more complicated for the cores from the continental shelf and slope. Overall an average sedimentation rate  $\sim 1-2$  cm/ka is deduced from this comparison, which agrees well with nearby ODP cores. Further work of a pilot core among them support our RPI comparison, in which grain size changes through Weibull decomposition, biogenic Ba flux calculation are included. Therefore, continuous deposition in abyssal Prydz Bay can be expected and RPI method could serve as an important tool for determination of the Quaternary age framework.