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Magnetostratigraphy for late Pleistocene records from the western Svalbard-Barents Sea margin

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Long Calypso piston cores and MeBo drillholes have recently been collected from the western Svalbard-Barents Sea margins. These largely hemipelagic sediments intercalated with a few dropstones (IRD) are used to establish a magnetostratigraphic framework for the late Pleistocene in this area. The lack of calcareous organisms in some of the sediment sequences makes it difficult to provide a continuous biostratigraphic framework based on stable oxygen and carbon isotopes. Instead, we try to supplement the available stable isotope stratigraphy with new paleomagnetic results, including relative paleointensity variations in the time interval of ca. 10-200 ka. Relative paleointensity variation is obtained by dividing Natural Remanent Magnetization (NRM) intensities by normalizers like magnetic susceptibility, anhysteretic magnetization, or isothermal magnetization. The new results indicate that the rock magnetic record exhibits large fluctuations which may distort relative paleointensity. The data are studied with respect to their use for paleointensity determination, or insight into depositional or post depositional processes, both of which may provide additional stratigraphic information in this climate-sensitive but complex region of the high latitudes.