



Temporal changes in ice-rafted debris composition prior to, during and after H2 on the NW European continental slope

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A new age model based on ^{14}C dating is presented for a sediment core from the European continental slope (core OMEX-2K; $49^{\circ}51' \text{ N}$, $13^{\circ}26' \text{ W}$). The age model confirms that the core spans both Heinrich layers 2 (H2) and 1 (H1). The composition of ice-rafted debris (IRD) within OMEX-2K has been examined using environmental magnetic analyses. The data demonstrate compositional variability of the IRD within the core section spanning H2. These differences are most readily explained by changes in the contribution of different IRD sources to the core site. Some IRD show magnetic signatures that are similar to IRD derived from the Laurentide ice-sheet (LIS) found in cores from within the main North Atlantic IRD-belt and can, therefore, be equated with the main H2 event. In contrast, other IRD-rich layers, both prior to and associated with the main H2 event, demonstrate different magnetic behaviour. This suggests a contribution from a non-LIS sourced IRD and, given the location of the core, this is most likely derived from ice-streams discharging from NE Atlantic margins such as the British and Fennoscandian ice-sheets. With the constraints of the accuracy of the current age-model, the timing of the supply of non-LIS IRD suggests that this source may be driven by processes other than those triggering the IRD supply from the LIS.