



Relative palaeomagnetic field intensity during the Mono Lake Excursion

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In the Mono Basin, CA, where the Mono Lake Excursion (MLE) is recorded in exposed siltstone that was deposited by Pleistocene Lake Russell, of which Mono Lake is the remnant, there is reduced relative palaeomagnetic field intensity (RPF) during the MLE that is followed by a gradual return over a span of about 10,000 years to the maximum RPF that preceded the excursion (Zimmerman et al., 2006; Benson et al., 2008). That behaviour is unlike the rapid recovery of RPF for the MLE in compilations of marine records (NAPIS: Laj et al., 2000; SAPIS: Stoner et al., 2002). The change in palaeomagnetic directions (inclination and declination) during the MLE in the Mono Basin is well known from the study of the excursion there by Denham and Cox (1971), Liddicoat and Coe (1979), and Liddicoat (1992), as is the change in RPF at three localities in the basin (Liddicoat and Coe, 1979; Lund et al., 2006; Zimmerman et al., 2006; Benson et al., 2008). Also in the record in the Mono Basin is a reduction of similar amplitude in the RPF that preceded the MLE by several thousand years. That reduction occurs when there is no unusual change in the palaeomagnetic directions, and this pattern is present in marine sediments on the Blake Outer Ridge in the North Atlantic Ocean (Lund et al., 2006). Thus, directional changes different from expected secular variation of the palaeomagnetic field do not always accompany a RPF as reduced as what occurred during the MLE.