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A benthic isotope record from the late Pleistocene ofA benthic isotope record from the late Pleistocene of IODP Site U1386 in the Gulf of Cadiz

Stefanie Kaboth and Lucas Lourens
Netherlands (S.Kaboth@uu.nl)

Current understanding of glacial-interglacial induced variations in the upper and lower stream core of the Mediterranean Outflow Water (MOW) is limited to studies within the last 130 kyrs. These studies suggest the development of a denser, intensified and deeper flowing glacial MOW, leading to an increase in sand content of the contourites deposited in the lower core, whilst the upper core is believed to be generally displaced or abandoned. In contrast, during interglacials, the MOW is less dense favoring an increased flow intensity along the distal area of the upper slope.
Here we present a high-resolution ($\sim$1 kyr) benthic foraminiferal stable oxygen isotope record from IODP Site U1386 of the past 570 kyr. Site U1386 was drilled during Expedition 339 within the upper core of the MOW. We compared our results with the sedimentary data of this site and with existing mediterranean and open ocean records to provide new insights into the evolution of the upper MOW on glacial-interglacial timescales. We evaluate the correlation and influence of glacial periods with upper MOW core variations, testing the concept of warm period intensifications of the upper MOW, and determine variations in the influx of warm saline intermediate waters into the North Atlantic Ocean.