



Radiocarbon calibration-comparison records based on marine sediments from the Pakistan and Iberian Margins

E. Bard, G. Ménot, and L. Licari

CEREGE, UMR Université Aix-Marseille, CNRS, IRD, Collège de France, Europôle de l'Arbois, BP 80, F-13545 Aix-en-Provence, France, (bard@cerege.fr)

We present new results on the radiocarbon records based on planktonic foraminifera of core MD042876 from the Pakistan Margin and updated results for core MD952042 from the Iberian Margin (Bard et al. 2004, *Science* 303, 178; 2004, *Quat. Res.* 61, 204; 2004, *Radiocarbon* 46, 1189; Shackleton et al. 2004, *QSR* 23, 1513). Both cores exhibit high sedimentation rates on the order of 50 and 40 cm/kyr for the Pakistan and Iberian cores, respectively. For a calendar age scale, we matched climate records of both cores to the oxygen isotopic profile of the Hulu Cave stalagmites that have been accurately dated by U-Th (Wang et al. 2001, *Science* 294, 2345). Our new comparison data can be compared with the IntCal04 record (Reimer et al. 2004, *Radiocarbon* 46, 1029) and with individual records based on other archives: corals from Barbados (Fairbanks et al. 2005, *QSR* 24, 1781), marine sediments of the Cariaco Basin (Hughen et al. 2004, *Science* 303, 202; 2006, *QSR* 25, 3216), varves of Lake Suigetsu (Kitagawa & van der Plicht 1998, *Science* 279, 1187; 2000, *Radiocarbon* 42, 369), and speleothems from the Bahamas (Beck et al. 2001, *Science* 292, 2453). Up to 26,000 cal-yr-BP, the Pakistan and Iberian data can be used to validate the precision and accuracy of the marine sediment approach. In the interval between 26,000 and 50,000 cal-yr-B.P., the Pakistan and Iberian records agree closely with each other and with the Cariaco and Barbados data. This agreement clearly shows the feasibility of extending the IntCal04 14C calibration curve.