

High precision ^{14}C dating of Lake Baikal sediments with AMS

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In 1996-1997, a new-generation Tandemron AMS ^{14}C system, built by HVEE, B.V., was installed at Nagoya Univ. After the successful performance tests of the spectrometer, we can now conduct ^{14}C measurements of archeological and geological samples with one sigma error of around $\pm 20 - \pm 30$ years. In 2001, high precision ^{14}C ages have been obtained for more than 1000 samples to establish a reliable chronology of paleoenvironmental changes. This new AMS system has been applied for ^{14}C dating of the cored sediments from Lake Baikal and Lake Khubusgul, by using total organic materials extracted from the lake sediments. Some results will be discussed here.