Preliminary results of high accuracy and precision 14C dating with a new generation AMS system at Nagoya University

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We have measured 14C ages of more than 8,000 samples from various research fields with a GIC Tandetron AMS system. In 1996-1997, we have installed, as a second machine, a new generation Tandetron AMS system built by HVEE, B.V. After the successful performance tests of the spectrometer in January, 1999, we could have conducted successfully 14C measurements of IAEA standards as well as some archeological and geological samples with a precision of better than 0.5 According to the reproducibility tests, the standard deviations in 14C/12C and 13C/12C ratios among 6 Hox-II oxalic acid targets were as small as 0.16and 0.028, respectively. The 14C background level of the AMS system was estimated by using commercial graphite powder to be around 50 kyr BP to 55 kyr BP.