describe automatic setup and tuning routines, which are designed to allow the total AMS system to be set up under computer supervision. Critical elements are subsequently auto-tuned so that each section of the instrument operates in a flat-topped region.

THE GEOCHRONOLOGY OF SEDIMENTS IN LAKES OF WEST CHINA

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The Xinjiong and Tibet plateau are located in the west of China where there are a number of inland lakes that are the highest above sea level and the largest of their kind in the world. Inexhaustible supplies of minerals, such as halite, glauber salt, strinitium minerals, borates and sylvine have accumulated in these salt lakes.

We report here the \(^{14}\text{C}\) dating of several saline lakes on the Xinjiong and Tibet plateau and their cycles of sedimentation within an estimated period of about 50,000 years. From the data obtained, we consider it appropriate to draw the boundary in the studied area between the Pleistocene and the Holocene at about 10,000 BP. In this paper, we discuss the changes of paleoclimate, which will be useful background information for studying and forecasting future climate change.

\(^{10}\text{Be}\) PROFILES AS A STRATIGRAPHIC TOOL

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Using accelerator mass spectrometry (AMS), it is now possible to measure detailed profiles of \(^{10}\text{Be}\) in ice cores and marine sediments. In addition to providing information on the parameters (primary cosmic-ray intensity, solar modulation, geomagnetic modulation) which control cosmogenic production rates, such data may be useful as a stratigraphic tool for establishing relative and/or absolute chronologies for the reservoirs in which they are measured.

We have now measured detailed \(^{10}\text{Be}\) profiles in several ice and sediment cores covering all or part of the last climatic cycle (~100,000 years). We will discuss these results in terms of cosmogenic production rate variations, and their potential application to establishing chronologies, as mentioned above.

RADIOCARBON AGES OF CARBONATE MATERIALS FROM GANGETIC ALLUVIUM

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The subsurface stratigraphy of the central alluvial plain of the Indo-Gangetic Plain contains lenticular beds of nodular concretions made up of calcareous sediments (Kankar). These deposits were formed by diagenetic processes in response to fluvial action and climate of the region. In the absence of organic materials, the soil carbonates were radiocarbon dated to derive the rate of sedimentation in the Gangetic plain.

\(^{14}\text{C}\) ages of calcareous nodules recovered from deep borings at Ranipur, Kanpur and Fatehpur are reported here. The average rate of sedimentation derived for the southern part of the central