

## **SEDIMENTS OF LAKE BAIKAL INDICATE CHANGES OF GLACIER DISTRIBUTION**

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The BDP96-1 drilling core samples were taken from the Academician Ridge in the central area of Lake Baikal in Russia. The magnetic records of the samples showed their geologic age being in the range of 5 million years with an accumulation speed of 4.1cm per 1,000 years(Sakai et al.,1997; Kawamuro et al.,1998). The particle-size of samples from the core was analysed by the method of laser beam. The materials of the BDP96-1 core mainly consist of clay, silt with some amount of diatoms, and sand. The rate of silt content depends on the rate of diatom frustules inclusion. If a high rate of productivity of diatoms occurred, it resulted in an increased rate of silt content. Williams et al.(1997) showed the relation of abundance of diatom frustules to climatic warmth. In warm conditions, diatom was abundant, but under cooler conditions it became depleted. The content rate of silt changed drastically at the BDP96-1 core near 2.7Ma. The amplitude of fluctuation of silt contents of the samples is small in the lower part until 2.7Ma and is large in the upper part after 2.7Ma. Since the decreasing percentage of silt content was gradual an expected decrease in diatom content could also be observed. Therefore, the climate became cooler around Lake Baikal in 5-2.7Ma. The amplitude of the fluctuation in 2.7-0.1Ma is extremely large. It is supposed that this large degree of fluctuation cause as a result of glaciation. It is assumed that the glacier on the high mountain in Siberia started at 2.7Ma.