

Lacustrine environment in Lake Hovsgol recorded in the sediments mineralogy

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Lake Hovsgol is located in the inside of continent where is sensitive to the climate change. Because lake Hovsgol is semi-closed lake and the sediment in the lake is little suffered by human activity, the sediment is in good preservation. Numerous cores from Lake Hovsgol have been collected in recent years. Especially, HDP04 core which was collected by Hovsgol Drilling Project in 2004 have investigated by many researchers. Sumino.(2006MS) suggested that carbonate minerals content in the sediment core corresponds the climate change. Furthermore, Prokopenko et al.(2005) suggested the possibility that carbonate minerals may restore the lake level variation and moisture balance.

Authigenic or clastic carbonate minerals are preserved in the sediment. Because crystal form and chemical composition of carbonate minerals are determined by water quality and surrounding environment when they have formed, the mineralogy of carbonates in the sediment must preserve the information about surrounding environment during the sedimentation. In present study, we tried to restore the past lacustrine environment in lake Hovsgol by mineralogical and geochemical analysis of carbonate minerals from HDP04 core.

References

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