



Environmental Magnetic Studies of Lake Sediments in Northeastern Taiwan: Implications of Climatic and Tectonic Changes for the last 1200 years

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Taiwan is a tectonic active province where the Philippine Sea Plate is on-going to collide with the Eurasian plate and to subside beneath it at the northeastern Taiwan. Climatically, Taiwan is also very sensitive for the East Asia Monsoon system. So, the variation of the lake sediment depositions was undoubtedly controlled by both factors.

In this study, magnetic proxies of sediments from three lakes in the surrounding area of Ilan Plan (two at north and one at south) at northeastern Taiwan were analyzed. The main purpose tries to identify the major factor affected the deposition at different time interval for the last 1200 years. The results indicated that the wet-dry variation seems to have about 150 year period. The most controlled factor is precipitation. However, active tectonic events might happen around 160 yrB.P., 500 yrB.P. at the south and 1000 yrB.P. at the north of the Ilan Plan.