

SEM032-P12

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Environmental magnetic study of core sediments from Lake Biwa (BIW08-B)

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About 100 m long sediments core (BIW08-B) was recovered at the northern part of Lake Biwa in 2008. Age of the deepest part of the core was estimated as c. 300ka based on tephrochronology. We have collected 3 unoriented samples of 7 cc from every 1 m and the total number of the sample is 293. Low-field susceptibility (X), susceptibility of anhysteretic remanence (X_{arm}), saturated isothermal magnetization (SIRM), IRM at $-0.3T$, and weigh of sample before and after freeze drying. Using these parameters, interparameters such as X_{arm}/X , $S_{-0.3T}$, HIRM, and water content (w) were calculated. Based on these parameters, general trend of the downward change can be briefly reviewed. From 0m to 35m, both X_{arm} and X_{arm}/X are showing relatively high values and the values of $S_{-0.3T}$ are all above 0.97. From 35m to 77m, those values significantly decreased. These lines of evidence suggest downward dissolution of very fine magnetite. Below 77m, rock magnetic data are disordered by sand layers.

Keywords: environmental magnetism, Lake Biwa, lake sediment core