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Relationship between OSL ages and water contents in the case of Japanese sediments

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There are a number of dating methods for Quaternary. Radiocarbon dating, for example, which can establish the time of formation of a wide range of organic materials, is predominant for late Quaternary ages, but for direct dating of the time of deposition of sediments the methods are relatively few (Aitken, 1998). The optically stimulated luminescence (OSL) dating (Huntley et al., 1985) is now used as an important tool for geoscientists concerned with sedimentary processes of the last million years or so, and also to some extent for archaeologists. It has been widely used for European, North American and Oceanian sedeiments. Though a number of OSL ages have been obtained from Indian and Chinese sediments in Asia also, OSL ages from Japanese sediments are not so many. In this study, the author report several OSL ages of Japanese Quaternary sediments and compare them with sedimentary sequence and other estimated ages, to discuss the relationship between water contents and OSL ages.

Aitken, M. J. (1998): An introduction to optical dating. Oxford University Press.
Huntley, D. J., Godfrey-Smith, D. I. and Thewalt, M. L. (1985): Optical dating of sediments. Nature, 313, 105-107.

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