Comparison of luminescence readers using post-Infrared Infrared stimulated luminescence of K-feldspar from last interglacial marine terrace deposits

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The two types of TL/OSL Readers, Risø TL/OSL Reader and Lexsyg series (Lexsyg Research and Lexsyg Smart), are widely used for luminescence dating. Some researches provide the same results of Quartz OSL dating using the two types of TL/OSL Readers (Lomax et al.2014), therefore it is thought that the two readers perform the same for OSL dating. However, few studies have compared with the two types of readers using K-feldspar OSL dating, especially where the samples are older than 100ka. This study examines post-infrared Infrared Stimulated Luminescence (pIR_{50/200}IR₂₉₀) dating from last interglacial marince terrace deposits using two types of TL/OSL readers (Risø TL/OSL-DA20 and Lexsyg Research). In addition to the results, we also discuss the differences between the readers, such as their analysis software for measuring fading rate and their differences in disc temperature during analysis.

References

Lomax, J., Kreutzer, S. and Fuchs, M. 2014. Performance tests using the Lexsyg luminescence reader. Geochronometria: 41, 327–333.

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