

Dating of river terrace sediments by the OSL method

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We have carried out OSL dating of late Quaternary river terrace to verify its applicability. Samples from the recent riverbed show a weak OSL and gave very young ages. OSL ages obtained from sand-lenses in terrace gravel layers show a good agreement with ones estimated by stratigraphic data. OSL ages obtained from flood plain deposits are older than geologically estimated ages. This was attributed to the mixing of different age grains by human activities and/or by incomplete optical bleaching due to the inundation process. Analyses of OSL from single quartz grains confirmed that these sediments were composed of grains having a wide range of palaeodoses. Therefore, the process in transportation and deposition of sediments should be considered for OSL dating of sediments.