

TL and OSL dating of loess deposits sampled from the eastern coast of central Sakhalin, Far East Russia

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The loess deposits were sampled from the Late Pleistocene to Early Holocene marine and fluvial terraces distributed along the eastern coast of central Sakhalin, Far East Russia. These samples are interesting in that whether the loess deposits in cold region are available for TL or OSL dating or not. The thickness of loess deposits on the M, L1 and L2 surfaces are 50 cm, 20-45 cm and 20 cm, respectively. Polymneral fine grains (4-11 microns) were used for the dating experiments. In TL and OSL dating, paleodose (DE) of each sample was estimated by the total bleach method and additive dose method, respectively. Seven different gamma doses 20 to 1280 Gy were irradiated to each sample, and their paleodose (DE) were computed based on the growth curves of the TL and OSL intensities.