

## K-feldspar post-IR IRSL ages suggest the presence of MIS 5a–c marine terraces in the eastern margin of the Kanto Plain, central Japan

\*Toru Tamura<sup>1,2</sup>, Hiroko Okazaki<sup>3</sup>, Hiroomi Nakazato<sup>4</sup>, Tomonori Naya<sup>1</sup>, Rei Nakashima<sup>1</sup>

1. Geological Survey of Japan, AIST, 2. Graduate School of Frontier Sciences, University of Tokyo, 3. Natural History Museum and Institute, Chiba, 4. National Agriculture and Food Research Organization

There has been a long-standing question about the Late Quaternary tectonics of the Kanto Plain nearby the triple junction of the plate boundaries. The Last Interglacial (MIS 5e) raised marine terrace has been widely correlated over the Kanto Plain and supposed to represent a general uplift trend associated with local variations. However, a thick accumulation of Quaternary sediments indicates the Kanto Plain had been subsided in the longer-term, and it is unclear when and how the recent uplift trend started. Fragmentary evidences have been recently presented for revising the tectonic history of the Kanto Plain. In the Iioka Plateau, at the eastern end of the plain, a part of the marine terrace formerly correlated with the MIS 5e was constrained to have ages of the MIS 5a or 5c by the composite chronology. As sea levels in the MIS 5a and 5c were much lower than MIS 5e, this revision poses a question about the consistent uplift of the Kanto Plain since the MIS 5e.

K-feldspar post-IR IRSL (pIRIR) ages are presented here to examine the marine terrace in the Kashima Plateau, eastern Kanto Plain, which has also been exclusively correlated as the MIS 5e. The sediment succession of the Kashima Plateau is characterized by marine to brackish deposits with pIRIR ages of the MIS 7 or 9, overlain by the succession of shallow-marine deposits. The shallow-marine succession is variable; in the landward section it is exclusively fine to medium sands overlain by a several meters thick aeolian unit, while the seaward section is gravelly coarse sands with negligible aeolian capping. This variation is corroborated with pIRIR ages. The landward and seaward sections are dated as  $137 \pm 14$  to  $155 \pm 12$  ka, and  $86 \pm 9$  to  $105 \pm 8$  ka, respectively. pIRIR ages are likely to be overestimated by several thousand to ten thousand years. Therefore, the Kashima Plateau represents a composite marine terrace that is correlated with the MIS 5e and MIS 5a or 5c in the landward and seaward sections, respectively. Along with the Iioka Plateau, this composite marine terrace occurs throughout the eastern margin of the Kanto Plain, which requires the Late Pleistocene tectonic history of the Kanto Plain to be reconsidered.

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