Zircon U-Pb ages for granitic rocks from the cores drilled in the Kanto Plain

Hideo Takagi¹ *, Kenji Horie², Masaki Takahashi³, Keiji Kasahara⁴, Hiroki Hayashi⁵

¹Waseda University, ²NiPR, ³AIST, ⁴ERI, University of Tokyo, ⁵Shimane University

We present the results of SHRIMP zircon U-Pb ages for basement granitic rocks of core samples drilled by AIST at Iwatsuki (1971) and southern Tsukuba (Kukizaki: 2006). For comparison, the zircon U-Pb age for Namee Granite exposed to the north of the Median Tectonic Line in the Shimonita area is also presented. The two core samples dated are 3509 m, the deepest part, from Iwatsuki and 809 m from Kukizaki, and are both mylonitized tonalite yielding cooling ages of 77-70Ma (Iwatsuki) and 66Ma (Kukizaki) reported. The results of zircon ages are:

IT3509 (Iwatsuki, tonalite) : 79.8 +/- 0.8Ma, 69.9 +/- 0.4Ma
KZ803 (Kukizaki, tonalite) : 86.3 +/- 0.7Ma
03122304 (Namee, granite) : 70.3 +/- 0.3Ma

These results suggest that the Iwatsuki and Kukizaki core samples are not correlative in age with the Abukuma and Tsukuba granitic rocks, but with the Ryoke granitic rocks, especially, with the older Ryoke granitic rocks. The Namee Granite is correlative with younger Ryoke granitic rocks, and is concordant with the lack of Ryoke regional metamorphic rocks around the granite body.

Keywords: Kanto Plain, Ryoke granitic rocks, SHRIMP zircon age