

## New U-Pb zircon age data for the Khushuut Uul granite pluton and host rock, Central Mongolia

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The Khushuut Uul area is a part of the Khustai Nuruu National Park located ~100 km SW of Ulaanbaatar and famous for its Takhi (Przewalski's horse). The geological setting of the park area is not well established and lacks absolute age data for the main igneous rock types. The main aim of this study is to obtain U-Pb zircon age data for the Khushuut Uul pluton and its host Sugnugur Formation. The pluton is composed of 2 phases of granite, dikes and veinlets that intrude into the Sugnugur Formation. Rb-Sr isochron age of the Khushuut Uul pluton indicates 223.9±10.8 Ma with Sr/I ratio of 0.704904 [1]. The Sugnugur Formation is composed of 2 members of siliceous volcanogenic schist and sandstone-schist composition. The age of the formation is interpreted differently (Devonian, Precambrian and Silurian) during the various scale geological mapping works and latest work indicates Silurian age [2]. There are no absolute age data for the Sugnugur Formation.

SHRIMP U-Pb zircon method is applied for this study and analysis have been done at the Beijing SHRIMP Center. Samples from the Khushuut Uul pluton show 213.7±1.9 Ma and 213.7±1.7 Ma ages, indicating Late Triassic. Detrital zircons from the Sugnugur Formation give 350.1±4.7 Ma and 346.5±3.8 Ma, which indicates Lower Carboniferous age. New U-Pb data for the pluton is consistent with previous Rb-Sr isochron age while the Lower Carboniferous age for the host rocks is a new finding.

[1] Odgerel (2009). *PhD thesis*, (in Russian). [2] Dorjsuren et al., (2004). GIC mapping report #7275 (in Mongolian).