

Laser-heating $^{40}\text{Ar}/^{39}\text{Ar}$ dating of Yabakei and Imaichi pyroclastic flow deposits in NE Kyushu along with Pink tuff.

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Laser-heating $^{40}\text{Ar}/^{39}\text{Ar}$ age dating were made on Yabakei and Imaichi pyroclastic flow deposits and an Pink tuff. Obsidian grains were incrementally heated by increasing the power of the laser. We obtained good plateau ages; 0.98 ± 0.02 Ma for Yabakei and 0.83 ± 0.20 Ma for Imaichi, and both are consistent with previous radiometric ages but smaller uncertainties. Total-fusion $^{40}\text{Ar}/^{39}\text{Ar}$ dating on separated plagioclase were critical depending on the sample size used for a experiment. Weighted average ages are 0.92 ± 0.09 Ma (N=5) for Yabakei and 1.11 ± 0.16 Ma (N=3) for Imaichi, which are consistent with the plateau ages considering uncertainties, while three analyses for Pink tuff were not good enough to give meaningful ages due to the insufficiency of ^{36}Ar signals.