

Resetting K-Ar age of frictional melting gabbro

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Frictional rock of dating is very difficult to analyze, because the closure temperature is different from each mineral what any rock is composed such minerals.

Radiometric age should be detected cooling age (=closing age), thermal history for geologic event is connecting and investigating quantitative analysis, which is calculated from temperature ascent and its temporary variation. It is expected good tool that a sensitivity mineral of thermal rising should be applied such geological event as fault movement for frictional thermal.

The thermal history of geologic event from fault rock should be detected by FT dating and ESR dating techniques, therefore its quantitative analysis is applied by thermal generation and thermal transport. Investigated a mechanics of dislocation earthquake is very important that from a thermal structure analysis, which should be estimated by thermal history of geologic event.

K-Ar dating is considered that closure temperature is high compared with FT/ESR method. However, such case of containing high temperature melting glass, it is expected that a temperature is enough too high and degassing from a rock, and Ar isotope ratio is equilibrium as atmospheric ratio.

In this study, we reported that a frictional melting gabbro is analyzed to detect a resetting age from Ar degassing by K-Ar method. Only resetting age detected from frictional melting glass. Unglassed mineral of frictional face is not detected a resetting age, because it is supposed that an equilibrium of atmospheric Ar ratio is incomplete from the frictional face of unglassed gabbro.