

Estimation of geochemical environment by secondary minerals in fractured granitic rock

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Fracture analysis by using deep drilling core sample has been carried out on the Late Cretaceous Toki Granite in Tono district, Gifu prefecture, central Japan. Fractures in the core samples are mostly intermediate angle with clayey fillings. They are similar to the fractures observed on the outcrop with the characteristics of inclinations, occurrence, structures and fracture filling materials. These fractures can be considered to act as a transport pathway for the ground water penetration into the rock body and provide further water-rock interactions. The understanding of those underground features therefore can be applied for the estimation of deep geological and geochemical condition in granitic rock.