
[JJ] Evening Poster | S (Solid Earth Sciences) | S-GL Geology

[S-GL31]Regional geology and tectonics

convener:Takeshi Yamagata(Department of Natural Sciences, Komazawa university), Makoto Otsubo(National Institute of Advanced Industrial Science and Technology (AIST), Institute of Earthquake and Volcano Geology)

Sun. May 20, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)

The main aim of this session is to discuss geologic structure and tectonic history of East Asia, especially of Japanese Islands, on the basis of the recent results of geology and other earth sciences.

[SGL31-P10]Plastic deformation of the Saga Granite and Itoshima Granodiorite in the south-eastern part of Sefuri Mountains, northern Kyushu

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Keywords:plastic deformation, Saga Granite, Itoshima Granodiorite, Sefuri Mountains

The Itoshima Granodiorite and Saga Granite are distributed in the south-eastern part of Sefuri Mountains, northern Kyushu. The Itoshima Granodiorite mainly consists of medium-grained foliated hornblende-biotite granodiorite, whereas the Saga Granite consists of medium-grained foliated two-mica granite. The Itoshima Granodiorite has NE-SW to NW-SE oriented high-angle foliation. The Saga Granite indicates ENE-WSW oriented high-angle foliation.

The Saga Granite underwent plastic deformation in this area. The Saga Granite has mylonitic texture composed of plagioclase and K-feldspar porphyroclasts surrounded by fine-grained quartz, biotite and muscovite grains. There are elongated quartz grains in the Saga Granite. Thus, the Saga Granite in this area is classified as protomylonite. There are also fine-grained quartz grains and elongated quartz grains in the Itoshima Granodiorite near contact with the Saga Granite. Amount of those quartz grains decrease to about 800m from contact.

Magnetic susceptibilities of the Itoshima Granodiorite and Saga Granit range from 5.1 to 8.5 and from 0.052 to 0.096×10^{-3} SI unit, respectively.