

Geological Verification of Hypothesis of Multiple Collision of Oceanic Arcs in South Fossa Magna, Central Japan

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The multiple collision hypothesis of oceanic arcs in the South Fossa Magna, central Japan is verified based on the data obtained from sedimentological analyses and paleomagnetic measurements. The results of facies analyses show that the formations in the Kushigatayama block, which is the first collided block, were deposited in a forearc setting. In the Misaka block (the second collided block), we can recognise rocks that make up a backarc rift, volcanic arc, and related trough fill sediments. Based on paleomagnetic measurement data, a central part of the Honshu arc rotated clockwise due to the collision of the Izu block at 1-2Ma.