

Hakone volcano and volcanoes around Izu peninsula : as indicator of time depending stress orientation of the Philippine Sea plate

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Hakone volcano is located on the northern tip of Philippine Sea plate, where tectonics is complicated because of the collision of Izu block with Honshu arc. To clarify time depending stress orientation, distribution pattern of volcanic vents and dikes of the Hakone is determined by field survey and K-Ar dating. Results are as follows; volcanic edifice is elongated from north to south and inferred vents are also distributed to the same direction before 0.27Ma. Distribution pattern of vents and dikes, however, has changed from northwest to southeast since 0.27Ma. Judging from these evidence, direction of the maximum horizontal compression has changed after 0.27Ma. It possibly suggests the change of the direction of relative motion on the northern tip of the Philippine Sea plate.

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