Geodynamics Seminar

第343回ジオダイナミクスセミナー

Deep magma feeding system of Fuji volcano, Japan: High-pressure experimental study using 850MPa HIP apparatus

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日時:11/22(木)午後4時30分~ 場所:総合研究棟4F会議室





Abstract

Fuji volcano is known for its perfect cone shape and it is the largest among Japanese Quaternary volcanoes. For the last 100kya, Fuji has erupted dominantly basalt magma (>>99 vol%). The origin of the voluminous yet monotonous basalt production in Fuji volcano have been discussed but remain unanswered. Here we report the first high-pressure melting experimental results on Fuji Basalt (Hoei-IV, AD1707) and demonstrate that its main magma chamber is located at ca.25km depth. We also show seismic tomographic images of Fuji volcano for the first time, which reveal the existence of strong upwelling flow in the mantle and its connection to the voluminous lower crustal magma chamber.