

Resistivity structure around the focal area of M6.4 earthquake beneath Mt. Fuji volcano

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Broad-band magnetotelluric (MT) measurements were conducted June to December, 2011 at Mt. Fuji volcano. The objective of this survey is to investigate the resistivity structure around the focal region of M6.4 earthquake, which occurred beneath Mt Fuji 4 days after M9 Tohoku Oki earthquake. MT Data were collected at 25 sites by using Metronix ADU07 system. The sampling frequency were 32Hz (15:00~20:00 UT), 1024Hz (17:00~17:30UT), and 32768Hz (14:50~15:51). Because of the high noise circumstance of this area, typical duration of data sampling was one month for one site. By applying the comb filter to reduce the harmonics of 50 and 60Hz and the robust MT response function estimation code (Chave and Thomson, 2004), we obtained the impedance tensor in the frequency range of 10,000 ~ 0.001Hz. In this presentation, we will show the resistivity structure by inversion, and will discuss the mechanism of the M6.4 earthquake beneath Mt. Fuji.