

A Tentative Research for Locating the Subsurface Earthquake Fault by Means of Shear Wave Splitting Observations

Keiichi Tadokoro[1], Kin'ya Nishigami[2], Takashi Mizuno[3], Yasuyuki Kano[4], Koji Yoshii[4], Kazutoshi Sato[5]

[1] RCVS, Nagoya Univ., [2] Disas. Prev. Res. Inst., Kyoto Univ., [3] D.P.R.I., Kyoto Univ., [4] RCEP, DPRI, Kyoto Univ., [5] Department of Geophysics, Kyoto Univ.

The earthquake fault of the Tottori-ken Seibu earthquake did not appear on the Earth's surface. We made a tentative research for locating the subsurface earthquake fault by means of shear wave splitting observations. We installed three-component seismometers at three sites where the earthquake fault has been estimated to be pass. No fractures related to the faulting were detected from the shear wave splitting analysis using the seismograms recorded at Unoike site. This may be because the earthquake made the fault rupture on the fault, and the fracture zone was not enough wide to show anisotropy. Nevertheless it may be possible to locate the subsurface earthquake fault using seismograms with favorable combination of hypocenters and observation sites.