Sm-P001 Time: June 4 17:00-18:30

Permeable structure of the crust estimated from postseismic crustal movements

Atsushi Mukai[1], Kunio Fujimori[2]

[1] Faculty of Law, Nara Sangyo Univ., [2] Earth and Planetary Sci., Kyoto Univ.

We modeled the postseismic movements following the Hyogo-ken Nanbu earthquake by pore pressure changes due to pore fluid flow. When we assumed the uniform crust, postseismic displacements predicted with hydraulic diffusivity 10 m2/s and thickness 6 km of a permeable layer agreed approximately with those observed. Predicted displacements in the Awaji area agreed well with those observed, although discrepancies between the predicted and observed displacements were large in the Rokko area. It is considered that those discrepancies were caused by inhomogeneous distribution of permeability in the crust. We tried to estimate inhomogeneous permeable structure by examining effect of pore fluid at each region to the discrepancies between the predicted and observed displacements.