

Strain seismograms from Off the west coast of northern Sumatra earthquake recorded at Amagase observatory

Wataru Morii[1]

[1] RCEP, DPRI, Kyoto-Univ.

At the Amagase observatory (situated in the central part of Kinki district), we obtained good quality strain seismograms from Off the west coast of northern Sumatra earthquake on December 26 2004. In the Amagase observatory, 4 components of extensometers (N72.5W, N62.5E, N27.5W and vertical) are in operation. On the strain seismogram recorded by the N62.5E component the direction of which is almost corresponding to the epicentral azimuth, we identified repetitions of Rayleigh wave up to the 13 degrees. On the strain seismograms, we recognized strain step though the epicentral distance was about 5400 Km. The values of the step were 3×10^{-10} for the N72.5W component and 7×10^{-10} for the N62.5E component. These values were coincident with the theoretical ones that were calculated approximately basing on the theory of half space elastic body. Spectra estimated from the strain seismogram showed a number of peaks that were coincident with the eigen periods of Earth's free oscillations. Among the spectral peaks, we recognized the splitting of the OS2.