

Cut-off frequency of 2000 Tottori-ken seibu earthquake -Main shock and after shocks-

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It is very important to examine spectral characteristic of high frequency range for strong ground motion prediction. A cut-off frequency, f_{max} of the 2000 Tottori-ken seibu earthquake and its aftershocks are examined.

We analyze direct S-wave portions of horizontal component records observed at bottom of borehole (SMNH01, KiK-net). Multitaper spectral method is applied to estimate spectrum, and they are corrected not to be affected by characteristics of recording system.

The simulated annealing method is applied for corrected spectrum to estimate cut-off frequency. In result, the cut-off frequency of main shock is estimated about 8.5Hz and those of after shocks are found to be higher than 10Hz