

The relationship of seismic moment and corner frequency for the aftershocks of the 1997 Northwestern Kagoshima earthquakes

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Two M6-class earthquakes occurred at Northwestern region of Kagoshima prefecture on 1997/3/26 (Mjma6.5) and 1997/5/13 (Mjma6.2). The aftershocks have been observed by the broad-band velocity-type strong-motion seismograph (VSE11C/12C). We selected the data observed from 1997/3/29 to 1998/3/3 (total 135 events). We applied the Brune's Method to evaluate their seismic moment (M_0) and corner frequency (f_c) by Hand-reading.

As a result, we found a negative relation for M_0 and f_c up to nearly $1.0 \times 10^{15} \text{ Nm}$. When M_0 value exceeds that value, f_c looks remaining constant. Such trends of M_0 and f_c 's relation derived Hand-reading were also confined by Andrews' Objective Method.