

## Difference in short-period level between the surface and buried fault rupture crustal earthquake in Japan

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Appearance of surface fault rupture in inland crustal earthquake affects significantly on ground motion characteristics. Somerville(2003) indicated that observed ground motions from buried rupture earthquakes are larger than those from surface fault rupture earthquakes in period range around 1.0 second. Kagawa *et al.*(2004) explained that the differences are mainly caused in seismic source characteristics of fault ruptures, such as peak slip rate and stress drop between shallow and deep region. The Headquarters for Earthquake Research Promotion compiled a method for strong motion prediction (recipe). Short-period level as a parameter of the recipe is an important factor that affects generation of short-period ground motion. Due to the difference in ground motion characteristics between surface and buried fault rupture, the short-period level may also be different between the two rupture types. In this study, we organize short-period levels that evaluated characteristic source models by empirical Green' s function method, and investigated empirical relations between short-period level and seismic moment for both surface and buried fault rupture crustal earthquake in Japan.

Somerville, P. G.(2003) : Physics of the Earth and Planetary Interior, 137, pp.201-212.

Kagawa et al.(2004) : Earth planet and space, 56, 3-14.

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