

Measurement of Attenuation Factor in Japan

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We tried to estimate the distribution of attenuation factor. The velocity records of events from the Freesia network and the J-array network were used. After correcting for the instrument response, P-wave spectra were estimated. Following Boatwright (1991), observed spectra were modeled by the theoretical spectra by assuming Brune's source model (1970). An average of site effects of all the station was assumed to be 1. As the results of analysis, the local site effects have little effect at most stations smaller. The path-averaged attenuation factors show the fair amount of scatter, which possibly reflects the inhomogeneous structure of anelastic parameter of upper mantle in the Japan region, considering the fact that no shallow event with a short distance was used at all