Attenuation properties of S-coda waves in and around Iriomotejima Island, SW Ryukyu, Japan.(4)

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The attenuation properties of S-coda waves, Qc, were investigated using local earthquakes occurred during 1991-1998 in and around Iriomotejima Island, SW Ryukyu, Japan. We also estimated the earthquake magnitude using the amplitude of S-coda waves and discussed the temporal variations in Qc and b-value of the Gutenberg-Richter relation. The results obtained are as follows;

(1) Annual changes in Qc-values were nearly constant during the period from 1991 to 1998.

(2) Experimental formula for magnitude estimation is ;

M=0.716*log(Ac)+0.799*log(n)+0.724

Where Ac is amplitude of S-coda waves, and n is a parameter which represents the start time of RMS amplitude.

(3) Averaged b-values are 1.49(s.e.=0.04) in 1991, while 1.31(s.e.=0.04) during 1994-1998.