

A precise, continuous measurement of seismic velocity at Aburatsubo, Japan (2)

Keiko Yamamura[1], Osam Sano[2], Hisashi Utada[1], Yoshio Fukao[3], Shigeru Nakao[4], Yasuko Takei[5]

[1] ERI, Univ. of Tokyo, [2] Faculty of Engng, Yamaguchi Univ., [3] Earthq. Res. Inst., Univ. of Tokyo, [4] ERI, Univ of Tokyo, [5] ERI, Univ. Tokyo

Continuous measurement of in situ seismic velocity has been conducted since November, 1998 at Aburatsubo, Miura peninsula. We detected the tidal variations of the order of 0.3 On observed travel times, which correlate well with the variations in tidal stress. The inferred stress sensitivity of the in situ rock is about 10^{-6} to 10^{-5} /Pa. We also found a coseismic decrease of seismic velocity of the order of 0.3 It takes about one week to return to the normal level. Corresponding variation was not recognized in the observed strain, which suggests the mechanism of earthquake-related velocity change differs from that of tidal variations.

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