

A precise, continuous measurement of seismic velocity at Aburatsubo

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We have developed the system of a precise, continuous measurement of seismic velocity at Aburatsubo, Miura peninsula. We find a periodic variation in velocity with the amplitude of about 0.3% and with the period of 12 hours, which corresponds to the oceanic tide. We compare the observed velocity change with the Earth's strain and resistivity observed at a nearby station. The periods of dilatation correspond to periods low velocity and high resistivity. The periods of contraction correspond to periods of high velocity and low resistivity. The resistivity change precedes the velocity change by about 3 hours, and the velocity change precedes the change of the total horizontal strain by about an hour.