

Densely microtremor observation to estimation of subsurface structure in Nishizono and Yura area, Hokuei Town, Tottori Prefecture, Japan

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Densely microtremor observations were carried out to estimate a characteristic of ground motion and subsurface structure in the damage area due to 2016 central Tottori Prefecture earthquake, Yura and Nishizono area, Hokuei Town, Tottori Prefecture. Microtremor H/V spectra and a distribution of the predominant period and underground structure models were obtained, and grasped the characteristic of ground motion based on this result. As a result, it was found that a difference of the subsurface structure depth to about 20m and a short period component of predominant period less than 0.5 seconds may have influenced structural damage.

Keywords: microtremor observation, characteristics of ground motion, subsurface structure, 2016 central Tottori prefecture earthquake