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# Sedimentary Structure around Koyama Pond in Tottori Plain from Microtremor Observations

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Microtremor observations were conducted in the area around Koyama Pond in Tottori Plain. The area has been developed since late 20th century. Thee components observations were carried out for surveying predominant period distribution in the area. H/V spectral ratios are used to obtain predominant period at observation sites. Array observations were also executed at eight places in the area. SPAC method is applied for 4 stations arrays with diameter 3 to 30 meters. Through the study, obtained predominant period distribution agrees well with past topographies before reclaiming, and suggests the buried fault line of the 1943 Tottori Earthquake. Sedimentary structures derived from array observation consist with borehole data, previous explorations, and the predominant periods mentioned above. Following the results, we are interested in the underground structure beneath Koyama Pond. It is important to reveal the structure to conduct simulations of wave propagation in this area.

Keywords: microtremor, H/V spectrum, SPAC method, sedimentary structure, Koyama Pond, Tottori Plain