The 3-D deep underground structure in Yokohama derived from PS-converted wave using the observation records

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The detailed 3-D deep underground structure in Yokohama was derived from the detection of the difference in time between a PS-converted wave and a direct P-wave (PS-P time) by using observation records of the Yokohama dense strong motion seismograph network. The PS-converted waves generated at the basement were detected at 120 observation stations of 150 stations. The basement depth at each station was calculated from PS-P time. The result showed that the basement depth distributes between 2.5 to 4.0km. On the whole this result was harmonized with the past study. It was revealed that the thickness of sediments in the southern area tends to be larger than those in the northern area and the steep dip of the basement is located at the northeast area.