P-wave velocity structure of the margin in the Southern Tsushima Basin, Japan Sea using ocean bottom seismometers and airgun

Takeshi Sato [1], Masanao Shinohara [2], Takaaki Takishita [3], Han-Joon Kim [4], Boris Karp [5], Kiyoshi Suyehiro [6], Nobuhiro Isezaki [7]

[1] Sci. and Tech., Chiba Univ., [2] Dept. Earth Sciences, Fac. Sci., Chiba Univ., [3] Geophysics Sci, Chiba Univ, [4] KORDI, [5] Dept. Geol. Geophys., POI, Russian Acad. Sci., [6] ORI, U. Tokyo, [7] Dep. Earth Sci,Chiba Univ.

The Tsushima Basin is located in the Southwestern Japan Sea. There is no seismic experiment using OBS in the Southern Tsushima Basin and marginal area. It is important for study of the formation of the Japan Sea and the Tsushima Basin to obtain a detailed seismic structure of this area. In 1998, we carried out a seismic refraction experiment using ocean bottom seismometers (OBSs) and airguns. Crustal thickness of the Southern Tsushima Basin is 15 km including the sedimentary layers. The 6km/s-layer with large velocity gradient has thickness of 3 km. Thickness of the 6km/s-layer increases towards the land. The lower crust seems more uniform than the 6km/s-layer.