

Seismic Velocity Structure of Continental Margin of the Northern South China Sea by OBS-Controlled Source experiment

Takaaki Takishita [1], Masanao Shinohara [2], Toshinori Sato [3], Mayumi Sekine [4], Naoshi Hirata [3], Hajimu Kinoshita [5], Kiyoshi Suyehiro [6], Zhou Di [7]

[1] Geophysics Sci, Chiba Univ, [2] Dept. Earth Sciences, Fac. Sci., Chiba Univ., [3] ERI, Univ. Tokyo, [4] ERC, ADEP, [5] JAMSTEC, DSR, [6] ORI, U. Tokyo, [7] SCSIO, Chinese Acad. Sci.

For discussion of back-arc basin formation, it is important to obtain a detailed seismic velocity structure in ocean continental transition zone because transition zone must have information of basin. In 1993, seismic experiment was conducted in the northern margin of South China Sea. Fifteen ocean bottom seismometers were deployed on 390km NS line with interval of 20-50km. We reprocessed explosives and airgun data, and interpreted that approximate 5.7-5.8km/s and 6.0km/s layer exist beneath the continental shelf. The 6.0km/s-layer vanishes in transition zone and there is no 6.0km/s-layer in South China Sea basin.