

The crustal structure of the Japan Sea by ocean bottom seismographic experiments

Masanao Shinohara [1], Takeshi Sato [2], Nobuhiro Isezaki [3]

[1] Dept. Earth Sciences, Fac. Sci., Chiba Univ., [2] Sci. and Tech., Chiba Univ., [3] Dep. Earth Sci, Chiba Univ.

It is useful for study of formation of the Japan Sea to obtain a detailed seismic crustal structure. We compile the results of seismic experiments for crustal structure in the Japan Sea and infer the process of formation of the Sea. The eastern Japan Basin must be formed by sea floor spreading. However there is possibility that spreading did not occur in the central Japan Basin. The Yamato Basin and the Tsushima Basin are estimated to be formed by crustal thinning due to rifting from variation of crustal structures in basin-land boundary and the seismic structure of the Kita Yamato Trough. Since the seismic structures of lower crust in both basins differ, it is considered that the processes of formation of both basins are not identical.