

## Comparison between the seismic structures obtained from receiver function analysis and that of refraction seismology

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To know the seismic structure of the crust and configuration of Moho boundary is very important to understand the formation and deformation processes of crust. Many researchers have studied the seismic structure of the crust and Moho boundary. Detail structures of the crust have been obtained at many regions. The seismic structures obtained from refraction seismology and from receiver function method are compared. The areas of Tohoku, Tokai-Chubu, and Southwest Japan are researched. The refraction seismic structures of Iwasaki et al. (2001), Iidaka et al. (2003), Sasaki et al. (1970), and Yoshii et al. (1974) are used.

In Tohoku region, the depth of Conrad boundary obtained by Iwasaki et al. (2001) is very consistent with that obtained by receiver function method. A clear boundary was obtained at the depth of 40 km by the receiver function analysis. The depth of Moho boundary obtained from refraction seismology is estimated around 30 km. In the Tokai-Chubu region, the depth of the Conrad boundary obtained from refraction seismology is consistent with that obtained from receiver function method. The depth of the Moho boundary was estimated to be around 30 km by Iidaka et al. (2003). On the other hand, a clear boundary was obtained at the depth of around 40 km from receiver function analysis. In southwestern Japan, the depths of the Conrad and Moho boundaries are consistent with between the refraction seismology and receiver function analysis. The boundary of 40km deep was checked by the use of synthetic method. The boundary is not artificial boundary caused by the reverberation of shallow structure.