# Seismic imaging of the crustal structure in the back-arc of Kyushu by receiver function analysis

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It is for a purpose of this study to understand the seismic structure of the crust in the back-arc of Kyushu by use of receiver function analysis. Murakoshi et al.(2003) applied the receiver function inversion using genetic algorithm to estimate the detailed velocity structures beneath the stations and showed that a low velocity layer is visible in the uppermost mantle beneath Fukuejima island in the western Kyushu by using the 17 broadband seismic stations in Kyushyu. And Murakoshi et al.(2004) estimated the three-dimensional velocity structures beneath Kyushu by using a migration technique. The low velocity layer is visible in the uppermost mantle in the western Kyushu may show the partially melting by the mantle upwelling in the backarc of Kyushu. Murakoshi et al.(2005) installed new broadband seismic stations at Hirado, Sumoto and Take in the western Kyusyu, and applied these data for receiver function analysis and migration imaging. In this study, we added new waveform data in these broadband seismic stations and Hi-net of a period of two year, and estimated the crustal structure in detail by using the receiver function analysis.