Crustal structure around the Izu-Ogasawara-Mariana arc obtained by seismic reflection survey

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The Izu-Ogasawara-Mariana arc is the typical oceanic arc and is known to be growth by subducting Pacific plate, extension of back arc and going up north the Philippine sea plate. In order to interpret the process of the crust growth of this typical island arc system, we carried out multi-channel seismic (MCS) reflection surveys using R/V KAIREI of Japan Agency for Marine-Earth Science and Technology (JAMSTEC) around the south Izu-Ogasawara-Mariana region since 2004. The data acquired in these surveys contribute to the continental shelf investigation. We discuss the fault configuration and dyke intrusion in the crustal structure from JAMSTEC MCS profiles.