

Volcanic features and volcanic massive sulfide deposit of Myojinnsyo caldera, Izu-Ogasawara Arc.

Izumi Sakamoto^{1*}, Ryuichi Shitahaku¹, Masatoshi Yagi¹, Yuka Yokoyama¹, Satoshi Okamura², Shipboard scientific party¹

¹Tokai Univ., ²Hokkaido Education Univ.

There are some submarine calderas on the volcanic front of Northern Izu-Ogasawara Arc. Volcanic massive sulfide deposits were reported from some of this caldera. Geological and geophysical investigations were carried out around the Myojinsho caldera. Caldera wall consists altered volcanoclastic deposits on the lower part, massive dacitic volcanic body on the middle part, and fresh pumiceous fragments on the upper part. There are some fossils with coral debris and shells, which show the shallow environments, on the caldera slopes. Massive andesite to rhyolite were sampled from the central cone and middle part of caldera slope. These volcanic rocks are quite similar on geochemical composition. Many pumice samples were also collected from the caldera area. These samples are slightly different by trace element from back-arc samples.

Keywords: submarine caldera, volcanic massive sulfide deposit, Myoujin-sho