

## Bathymetry and present hydrothermal activities in the southern Mariana back arc basin

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<http://www.sci.osaka-cu.ac.jp/geos/geo1/Masuda.html>

Bathymetric surveys of the southern Mariana Trough south from 14° showed the two dome-like topographic features, characteristic for the fast spreading ridge, in the center of the back arc basin between the active Mariana Arc and remnant Western Mariana Arc. Active low temperature hydrothermal areas associating with iron oxyhydroxide and manganese oxide chimneys on the fresh lava field were found on the spreading ridge axis on the eastern part of the back arc basin, indicating the active volcanism. It is suggested that the present spreading in the southern Mariana back arc basin started in recent at the eastern edge of the basin.