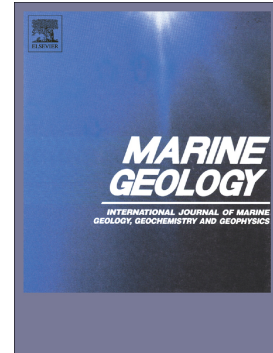


Accepted Manuscript

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PII: S0025-3227(17)30068-3
DOI: <https://doi.org/10.1016/j.margeo.2017.12.005>
Reference: MARGO 5736
To appear in: *Marine Geology*
Received date: 16 March 2017
Revised date: 9 November 2017
Accepted date: 15 December 2017

Please cite this article as: Liao Shili, Tao Chunhui, Li Huaiming, Zhang Guoyin, Liang Jin, Yang Weifang, Wang Yuan, Surface sediment geochemistry and hydrothermal activity indicators in the Dragon Horn area on the Southwest Indian Ridge. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Margo(2017), <https://doi.org/10.1016/j.margeo.2017.12.005>

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Surface sediment geochemistry and hydrothermal activity indicators in the Dragon Horn area on the Southwest Indian Ridge

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ABSTRACT: The fluids found in sulfide-producing hydrothermal vents are rich in ore-forming elements. These elements usually precipitate as solid particles that are dispersed by the plumes and deposited as sediments around the hydrothermal field. To assess how the geochemical features of such sediments may be used in seafloor sulfide exploration, this study analyzed the surface sediment geochemistry in the Dragon Horn area on the Southwest Indian Ridge. The results indicate that the sediments are mainly composed of pelagic material, basalt and ultramafic debris, (Mn,Fe) oxyhydroxides and Mn oxides, hydrothermal components. The debris content in this area is lower than that in sediments found at fast- and medium-spreading mid-ocean ridges, with relatively high amounts of ultramafic components, indicating that ultramafic rock outcrops are present in the study area. Precipitated hydrothermal

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