

Reconstitution of oceanic crust and along axis variation in gabbroic rocks in the northern part of the Oman ophiolite

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We reported the reconstitution of oceanic crust due to the propagation of ocean ridge in the northern part of the Oman ophiolite. Further studies show that gabbroic complexes are considerably varied in terms of lithofacies along the ridge axis. Based on following criteria such as mode of occurrence of Moho-transition zone, regional variation of mineral lineations in gabbro and characteristics of lithofacies, we defined the central, edge and their intermediate parts of the ridge segment. Mg/(Mg+Fe) values of mafic minerals of gabbros exhibit a systematic variation, i.e. higher in the central part, lower at the edge and intermediate at the intermediate part, respectively. This indicates a lateral variation of magma supply along the segmented ocean ridge.