Magma chamber model beneath ocean ridge inferred from geometry of layered gabbro of the Oman ophiolite

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Various models have been proposed for the magma chamber beneath ocean ridges so far. We suggest a new model based on the study of gabbroic rocks in the Oman ophiolite. The key of models depends on geometry of layerings in gabbroic layer. The ophiolite dips eastward in the northern part. In this situation, the geometry of layerings must be flower-like or syncline structures. Our studies show the latter structure. All previous models do not agree with the geometry of lyerings. The model, in which the ophiolite was generataed at western flank and layering dips opposite side of ridge axis, could exlain the obserbed structures. Another model, eastern flank of ocean ridge and layering dips toward ridge axis, is also possible. However, charcteristics of layerings suggest the former model.