



Developmental aspects of Hongcheon Fe-REE ore body, S. Korea

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Fe-REE deposits occurred in Jaeunri, Hongcheon formed by carbonatitic melts consist of 3 parts such as northern, middle and southern ore bodies showing discontinuous distribution, and extension shape of ore bodies can be figured through field survey and geometric analysis. Foliations in gneiss around northern and middle ore bodies represent NNE, whereas toward south its direction changes gradually from NE to ENE and finally N-S direction appears in southern ore body. From Jaeungyo to Saemaetulgyo geometric analysis from field work gives that fold shape in this area is open synclinal fold concavely and gently to NW with 45° northwestward plunging axis, in contrast small scale anticline with 45° northwestward plunging axis in Yagsooteo area near western part of Saemaetulgyo. Dragging effect could be occurred on these folds by WNW trending dextral strike-slip fault from Yagsooteo to Saemaetulgyo. New ore body can be confirmed from folding structure estimated by trend of foliation, and thus unidentified ore body may be exist under alluvial surface from middle to southern ore body and its distribution could show "N" shape, considering with estimated strike and dip of foliations. This estimated extension of ore body figured out by structural analysis in the studied area works an important role for measuring of ore reserve and selecting of drilling site to find new ore body.