

KAERSUTITE MEGACRYSTS IN CAMPTONITES FROM THE SOUTHEAST CARPATHIANS, ROMANIA

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The Mesozoic intraplate magmatic activity in the Southeast Carpathians generated dikes of basalts, diorites, camptonites, syenites and rhyolites, intruded in the crystalline schists of the Getic and Supragetic Unit.

Megacrysts of kaersutite have been identified in camptonites occurring in this area. They appear as single crystals up to 5 cm long. The kaersutite crystals are cut by very fine calcite, quartz and chlorite veinlets.

The megacrysts have been investigated by optical microscopy, chemical methods (electron microprobe for major elements, ICP-MS for trace elements) and XRD.

The chemical composition is homogenous along and across the crystal. The calculated formula on the basis of 23 O is:



The LREE are slightly depleted. The selected XRD data sorted by intensity (I/I_0) are 3.17(100), 8.75(93), 3.32(31), 2.92(22), 2.84(19), 2.73(19), 7.36(11), 2.78(10).

Kaersutite megacrysts represent samples from the mantle beneath the Southeast Carpathians at the time when the camptonites have been formed.