

of the relations between the Strendze respectively, Serbo-Macedonian, and the Rhodope basement should permit to confirm or dispel assumptions of a Paleozoic origin of the latter.

## K-FELDSPAR MEGACRYSTS BEARING GRANITIC SUITE IN THE SERRE (CALABRIA, SOUTHERN ITALY)

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The late hercynien plutonism is widespread along the Calabria Arc Peloritani. It is late to post metamorphism and consists of a calc-alkaline association and of a peraluminous one (Paglionico and Rottura 1979). In the Serre (Southern Calabria) a porphyritic granitic body (15-5 km) striking NE-SW intrudes the calc-alkaline plutonites. It displays granodioritic to monzogranitic composition ( $\text{SiO}_2=69.71\%-74.08\%$ ) with calc-alkaline affinities but peraluminous features ( $A/CNK=1.07-1.23$ ). These rocks are enriched in REE ( $x$  for  $\Sigma \text{REE}=290,34$ ) and show increasing Rb and decreasing Sr, Ba and LREE towards the more evolved terms which are characterized also by negative Eu anomaly. The Rb/Sr age on muscovite is 287 Ma and the initial  $^{87}\text{Sr}/^{86}\text{Sr}$  ratio at 290 Ma ranges from 0.7113 to 0.7117. The overall geochemical and isotopic features indicate that fractionation of biotite, plagioclase, quartz and apatite controlled the evolution. The microgranular enclaves occurring in the peripheral front of the pluton and having tonalitic composition quite similar to the fractionated assemblage, likely represent cumulates. The composition of the calculated fractionated assemblage seems to be in equilibrium with the melt at  $P=2\text{Kb}$  and  $T=690^\circ\text{C}-770^\circ\text{C}$  (see Naney 1983). The initial  $^{87}\text{Sr}/^{86}\text{Sr}$  isotopic ratios indicate that the origin of the studied granites involved crustal rocks as contaminants or as source of the melts.

The megacrysts of k-feldspar have BaO contents decreasing from core (2.05%) to rims (0.44%) with the latter bearing comparable with the BaO contents (0.20%) of the interstitial k-feldspar. They are in isotopic equilibrium with the whole rocks ( $(^{87}\text{Sr}/^{86}\text{Sr})_{290\text{Ma}}^{\text{K-feld}} = 0.7116-0.7119$ ). So a magmatic origin must be inferred for this phase which started to crystallize when 63% of liquid was present. Its growth happened during a large time-interval and as consequence it formed very large crystals with variable  $(k_{\text{d}(\text{Ba})})^{\text{K-feld}/1}$  and ranging from 7.31 to 17.86 in the cores (Fornelli 1991). The megacrysts experienced transformation into max-microcline ( $\Delta=0.81\text{\AA}-0.96\text{\AA}$ ) due to subsolidus deformations which affected also biotite and quartz. The deformation however did not influence the isotopic and chemical composition of the K-feldspar which maintain its original signatures. The subsolidus deformation overprints the flow structures such as

preferential distribution of megacrysts and of schlieren of biotite, apatite and zircon, likely produced during an emplacement through a ballooning mechanism.

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### **DEVONIAN TENTACULITES OF TRANSCAUCASIAN PART GONDWANA-LAND MARGIN AND ITS BIOSTRATIGRAPHIC AND PALEOGEOGRAPHIC SIGNIFICANCE**

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Devonian deposits of the Transcaucasian region to the south of Sevan-Akera ophiolitic suture zone are presented only by platform type formations of the marginal shelf part of the Gondwana-Land. There are mostly carbonate and terrigenous deposits. In them for the first time 17 genera and 30 species tentaculites were established and the intervals of existence several genera were corrected by author. The classification of the order Tentaculitida was reworked a little by the study of the morphological speciality of the shells.

On the ground of the stratigraphic distribution of tentaculites in devonian section the biostratigraphic scheme was given and the correlation with the local zonal schemes by brachiopods and conodonts was realized.

The benthic forms dominate among the Transcaucasian tentaculites, now and then representatives of open sea appear, especially in the upper Eifelian. The paleogeographic significance of tentaculites demand additional investigation.