

## **MINERAL ASSEMBLAGES FROM BOBOLOS LOCALITY (EAST SERBIA)**

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The studied locality lies in the Carpatho-Balkan composite terrane e.g. its Stara planina – Porec terrane (KARAMATA & KRSTIĆ, 1996). It belongs to the Proterozoic Tekija crystalline complex composed mainly of gneisses, mica-schists (ERIĆ *et al.*, 1996) and amphibolites.

Three various type of mica-schist with exotic mineral assemblages occurs in Bobolos locality: kyanite-corundum, andalusite and muscovite-paragonite schists.

The importance is contributed to the unique occurrence of banded kyanite-corundum schist (5 x 4 x 3 m in size) composed of kyanite (75 – 80 vol. %), corundum (15 – 20 vol. %), and rutile, paragonite, muscovite and chlorite (up to 5 vol. %). This banding characterised by exotic alternation of gray-bluish kyanite-rich (up to 10 cm thick) and dark-gray corundum-rich (0.5 – 1.3 cm thick) layers. The euhedral to subhedral kyanite crystals are up to 10 cm long. Corundum appears as pseudolamellar grain. Occasionally in the outer and inner marginal zones of both minerals appear tiny leaflets of paragonite. Irregular rutile grains (up to 0.4 mm long) are mainly included in kyanite (rarely in corundum).

Kyanite-corundum schist alternate downward by grey-greenish porphyroblastic andalusite schists composed of muscovite and andalusite. Euhedral prismatic porphyroblasts of andalusite are 1 to 1.5 cm long. The section perpendicular to the c-axis characterised by two cleavages (90° and 102°). Muscovite (> 2 x 0.6 mm) makes coarse-grained foliated matrix or lenticular accumulation among andalusite crystals. Fine foliages of muscovite occasionally concentrated along andalusite cleavage. Radial aggregates of secondary chlorite developed around some andalusite crystals.

The lowermost part at the Bobolos locality is made up of grey-whitish porphyroblastic muscovite-paragonite schists with kyanite. The foliages of muscovite and paragonite are up to 1.5 x 0.4 mm and make foliated matrix. Kyanite as euhedral prismatic porphyroblasts (up to 1 x 3 mm) or needles are scattered in mica-matrix.

The chemical compositions of all presented minerals were made as well as unite cell parameters and correlated.

According to all data it is quantified that above mentioned assemblages were formed by the metamorphism of kaolinite sediments in the temperature interval of 560 – 660 °C ± 60 °C and pressure of 4 - 7 kbar.

### References

KARAMATA, S., KRSTIĆ, B. (1996). Terranes of Serbia and neighbouring areas. In: *Terranes of Serbia* (Eds. Knezević, V. and Krstić, B.), Belgrade, 25-40.

ERIĆ, V., CIRIĆ, A., MILOVANOVIĆ, D., KURDYUKOV, E., SRECKOVIĆ, D. (1996). Petrology of micaschists of Tekija (Eastern Serbia). In: *Terranes of Serbia* (Eds. Knezević, V. and Krstić, B.), 119-123, Belgrade.