

OKENITE AND NEKOITE FROM THE SZÁR HILL, POLGÁRDI, HUNGARY

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Between Polgárdi and Szababattyán, on the Szár Hill, Middle Devonian crystalline limestone (Polgárdi Limestone Formation) outcrops to the surface, which can be studied in quarries. The limestone formation is cut by Triassic (?) andesite dykes, resulting in contact metamorphic and metasomatic effects on the limestone. The main types of these contact rocks are the followings: contact marble, vesuvianite-diopside skarn, diopside skarn and wollastonite skarn (HORVÁTH & ÓDOR, 1989).

In some places stubby columnar or dipyramidal, colourless apophyllite crystals cover the fissures in the wollastonite skarn. Okenite, nekoite, rhombohedral calcite crystals and white thaumasite masses consisting of minute, acicular crystals developed on the apophyllite coatings. Thaumasite is not always associated with apophyllite, it also appears alone in the fissures.

Okenite forms typical white “cottonball” like aggregates, the size of which are usually about 1 mm, but rarely can reach 4 mm in diameter. Nekoite appears as colourless, acicular crystals of 1–3 mm size, which form flat, fan-shaped crystal groups. The presence of both minerals was confirmed by X-ray diffraction investigations.

Deposition of this highly hydrous Ca-silicate association is the result of hydrothermal activity on the rock. The late crystallization of these relatively low-temperature minerals is indicative of the accumulation of water and volatiles in the final stage of mineralisation.

Okenite and nekoite are rather rare minerals. The Szár Hill is the first occurrence of nekoite and the second occurrence of okenite in the Carpathian region. Until now okenite has been known in the Carpathians only at Criscior, near Brad, Metaliferi Mts., Transylvania, Romania (ISTRATE, 1980).

References

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