PŮVODNÍ PRÁCE/ORIGINAL PAPER

Metamorfný vývoj tremolitových mramorov z Ostrej pri Hnúšti (Stolické vrchy, Slovensko)

Metamorphic evolution of tremolitic marble from Ostrá near Hnúšťa (Stolické vrchy, Slovakia)

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Abstract

The prograde metamorphic stage of the Hnúšťa - Ostrá marbles is indicated by the phlogopite and the tremolite mineral assemblages. On the other hand talc, a muscovite and a clinochlore are characteristic for the retrograde mineral associations. Occurrences of a calcite and a dolomite in the marbles are represented by the two generations. First is determined by the main dolomite 1 and the calcite 1 grains in matrix. A presence of the dolomite 1 exsolution is typical for the calcite 1. Second generation is determined by calcite 2 and dolomite 2, which are part of the inclusions in tremolite. The calcite 2 is homogeneous and does not have any exsolution lamellae. The average P-T conditions of prograde metamorphic recrystallization are in the range of 240 - 330 MPa (P) and 528 - 543 ± 11 °C (T). The retrograde stage of metamorphic recrystallization is specified from the muscovite-chlorite pairs and clarified pressure of 300 MPa and temperature of 296 ± 12 °C. The studied tremolites are characteristic with tschermak substitution.

Key words: *metamorphic conditions, tremolitic marble, Hnúšťa - Ostrá, Slovakia*

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