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# Minerální asociace metakarbonátů s brucitem z lokality Mýtinka - Vysoká, Krušné hory, Česká republika

## Mineral assemblage of brucite-bearing metacarbonates from the locality Mýtinka - Vysoká, Krušné hory Mts., Czech Republic

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### Abstract

Metacarbonate rocks were sampled at the Mýtinka - Vysoká skarn site near the Měděnec village (Krušné hory/Erzgebirge Mts., Czech Republic) and studied by means of electron microprobe. The mineral composition of rocks varies widely between dolomite marble and calcitic dolomite. Non-carbonate phases are common and represented by brucite, chlorite (clinochlore), spinelides (classified as spinel and magnetite), forsterite, hydroxylclinohumite, hydroxylapatite, quintinite, serpentine, sphalerite and *limonite*. Whereas most of these phases are accessories or subordinate minerals, tabular brucite is the major component in all samples taking 5 - 20 vol. % of the rock. Spinel, forsterite, hydroxylapatite, and hydroxylclinohumite represent a prograde-metamorphic assemblage, which crystallized under HT-LP conditions in equilibrium with low-F low-$H_2O$ fluids. The other phases were formed during stepwise retrograde hydration mediated by F-enriched and water-rich fluids. The oldest alteration phase is serpentine, which was followed by chlorite and brucite, and then by quintinite. The retrograde hydration could be at least partly related to the activity of skarnization fluids. The studied rocks display unique mineral composition, which has not an equivalent in the Krušné hory/Erzgebirge area. Until now, dolomite marbles containing forsterite, spinel and humite-group minerals and showing appropriate retrograde alterations of these minerals were only known from the Variegated Group of the Moldanubian Zone of the Bohemian Massif.

***Key words**: Krušné Hory Crystalline Complex, dolomite marble, brucite, humite group, forsterite, retrograde hydration*

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