

# Přehled minerálních asociací a litologie mramorů české části moldanubika (Český masiv)

**Mineral assemblages and lithology of marbles of the Bohemian part of the Moldanubian Zone (Bohemian Massif)**

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## Abstract

Several types of locally abundant marbles occur in variegated complexes of the southern Bohemia with distinctive mineral assemblages and lithology of the host rocks. The following types were distinguished: (1) Silicate-calcite marbles ( $\text{Cal} + \text{Di} + \text{Ttn} \pm \text{Tr} \pm \text{Qz} \pm \text{Pl} \pm \text{Kfs} \pm \text{Wo}$ ); (2) pure calcite marbles, locally with dolomite ( $\text{Cal} + \text{Phl} \pm \text{Di} \pm \text{Qz} \pm \text{Dol}$  and  $\text{Tr} + \text{Cal} + \text{Phl}$ ); (3) graphite-calcite marbles, locally with silicates ( $\text{Cal} + \text{Phl} + \text{Gr} + \text{Di} + \text{Py} \pm \text{Dol}$ ); (4) calcite-dolomite marbles ( $\text{Fo} + \text{Cal} + \text{Dol} \pm \text{Chl} (\text{Spl}) \pm \text{Chu} \pm \text{Chn}$  and  $\text{Di} + \text{Cal} + \text{Dol}$ ) with accessory geikielite, baddeleyite and zirconolite and (5) dolomite marbles ( $\text{Dol} + \text{Tr} \pm \text{Cal} \pm \text{Phl} \pm \text{Fo}$ ). The peak-T conditions at  $T \geq 650$  °C and  $P_{\text{CO}_2} < 0.6$  are indicated by the assemblage  $\text{Di} + \text{An} + \text{Wo}$  in calcite marbles and  $\text{Spl} + \text{Fo} (X_{\text{Mg}} \approx 1)$  with geikielite and baddeleyite in dolomite marbles, respectively. The retrograde post-peak-T at  $< 550$  °C is characterized by the assemblage  $\text{Dol} + \text{Tr}$  and serpentinization of forsterite. The following regions were defined in this area based on their geology and lithology: (A) calcite marbles with quartzites overlying lower Monotonous unit; (B) Český Krumlov region with marbles closely associated with graphites and partly with amphibolites; (C) rather small bodies of marbles associated with Gföhl migmatites, granulites and durbachites; (D) giant bodies ( $> 300$  m thick) of calcite marbles in the western part of the Moldanubicum.

**Key words:** mineral assemblage, microprobe analyses, marble, lithology, regional distribution, Moldanubian Zone, Bohemian Massif

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