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PŮVODNÍ PRÁCE/ORIGINAL PAPER

Mineralogická charakteristika křemenné žíly se scheelitem a alpské žíly s prehnitem z lomu v Plaňanech u Kolína (kutnohorské krystalinikum)

Mineralogy of scheelite-bearing quartz vein and prehnite-bearing Alpine-type vein from the quarry Plaňany near Kolín (Kutná Hora Crystalline Complex)

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Abstract

Two new types of hydrothermal veins were found in the quarry at Plaňany. Both mineralizations are hosted by a lenticular body of amphibolites embedded in migmatites and gneisses of the Kutná Hora Crystalline Complex. The first type of mineralization is represented by subvertical scheelite-bearing quartz vein, which strikes WNW-ESE, perpendicularly to foliation planes of host rocks. In addition to quartz, the vein also contains a small amount of sulphides (especially chalcopyrite and molybdenite, less pyrite and sphalerite, rarely pyrrhotite and argentopentlandite), calcite, silicates [zoned amphibole (with compositions ranging from magnesiohornblende to actinolite), chlorite (clinocllore), plagioclase (andesine to albite) and prehnite] and scheelite, which forms up to 3 cm big nests in quartz. We cannot exclude the possibility that magnesiohornblende cores of amphibole crystals as well as andesine cores of plagioclases represent relics of host rock. Second type of mineralization is vein with prevailing prehnite, which is oblique to foliation of host amphibolites. Besides prehnite, it contains adularia, calcite and actinolitic amphibole. Both studied mineralizations represent retrograde-metamorphic mobilisates similar to the Alpine-type veins. Chlorite thermometry suggests that chlorite from scheelite-bearing quartz vein originated at temperatures between 253 and 298 °C. The source of Mo and W necessary for formation of molybdenite and scheelite is not clear, but one cannot exclude that these elements were transported by parent fluids from felsic rocks outside of the host amphibolite body.

Key words: *Alpine-type veins, scheelite, prehnite, molybdenite, amphibolites, Kutná Hora Crystalline Complex, Bohemian Massif*

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