

solutions with negligible amounts of carbon dioxide to circulate within the fractures and cavities. According to observed phase transitions on freezing, one may presume the chloride solutions with up to 2.6 weight per cent NaCl eq., but most frequently nearly zero, i. e. ground-water must have caused the alteration processes. Regarding the features of fluid inclusions trapped, the mineralization environment must have been subjected to boiling conditions. Fluid inclusions forming in such conditions may trap both immiscible fluids, i. e. water and steam in random ratios and thus homogenization temperatures have to be scattered within the wide range and they usually exceed the temperature of entrapment. In spite of this both water and steam were rarely found to be sealed contemporaneously in a pair of inclusions, which homogenize into the liquid or vapour at the same temperature. Such inclusions permit us to determine either temperature or pressure with high accuracy using the data of Haas (1976). The maximal estimated conditions 270 °C and 55 bars suggest the alteration process to have taken place 660 m beneath

the surface, if the further data of Haas (1971) were applied. At the Šobov locality, the alteration process has continued down to 166 °C at least. The distinctive differences in homogenization temperatures of fluid inclusions between both localities under consideration exclude the concept about allochthonous position of Kamenný vrch locality, which was assumed to be moved out from Šobov by the andesitic lava-flow. This is supported also by chemical analyses of leachates, which have pointed out the sodium-dominated hydrothermal system to both the Šobov locality, whereas at the Kamenný vrch locality the potassium-dominated hydrothermal system containing surprisingly high amounts of Zn-salts (believed to be chloride) have been found to have developed. Owing to the estimated thermodynamic conditions as well as the composition of fluid trapped, the concept claiming the synsedimentary origin and also the action of low-to-medium thermal solphatares should be rejected.

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ZO ŽIVOTA SPOLOČNOSTI

Stanislav Rapant: Výsledky hydrogeochemického vyhľadávania rúd v Nízkyh Tatrách (Bratislava 16. 5. 1985)

Pre oblasť tatrického kryštalinika Nízkyh Tatier. boli vytypované ako hydrogeochemické vyhľadávacie príznaky As, Sb, W, Mo, Zn a koeficient SO_4/M . Najkontrastnejšie anomálie v prírodnej vode vykazoval As (fónový obsah 0,03 mg.l⁻¹, anomálny obsah 0,08 mg.l⁻¹), ktorý vytváral anomálie konformné s anomáliami scheelitovo-zlatonosného zrudnenia, zistenými metódou šlichovej a pôdnej prospekcie. Ako priame vyhľadávacie príznaky uvedeného typu zrudnenia sa

uplatnili W a Mo, ktoré boli kvantitatívne analyticky zriedkavo stanovované vzhľadom na veľmi nízky obsah v prírodnej vode. Fónový obsah W a Mo je pod medzou dôkazu schopnosti (0,01 mg.l⁻¹) a kvantitatívne stanovenie predstavuje už anomálne hodnoty. Pomerne bežným stopovým prvkom v prírodnej vode kryštalinika Nízkyh Tatier je antimón (fónový obsah 0,02 mg.l⁻¹, anomálny obsah 0,04 mg.l⁻¹), ktorý vytváral veľmi kontrastné anomálie v severnej časti Nízkyh Tatier v oblasti známych antimonitových ložísk v okolí Magurky a Dúbravy. Výsledky dosiahnuté hydrogeochemickými prácami boli konformné s ostatnými geochemickými metódami použitými v danej oblasti.