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# Wolframová a sulfidická hydrotermální mineralizace z Pekelského vrchu u Jihlavy (Česká republika)

## Tungsten and sulphidic hydrothermal mineralization from Pekelský vrch near Jihlava (Czech Republic)

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### Abstract

The occurrence of tungsten mineralization of greisen type with the dominant ferberite and scheelite in quartz veins was detected in 1963 at the site Pekelský vrch near Jihlava. We conducted a detailed mineralogical research of the vein material sampled in the years 2020 - 2022. The dominating tungsten mineralization is represented especially by two chemically different types of ferberite, including relatively pure younger ferberite and older generation of ferberite containing substantial amounts of hübnerite (19 - 45 mol.%) and huanzalaite component (2.6 - 4.1 mol.%). Widespread scheelite replaces earlier ferberite, and is replaced by younger generation of ferberite. The Ti,W-rich columbite-(Fe) is an accessory phase associated with younger generation of ferberite. In addition to tungsten mineralization, there was recorded a varied sulphidic mineralization with dominating pyrite, chalcopyrite, galena, molybdenite and rare sulphosalts including matildite and gustavite, and locally also tellurosulphides (joséite-A and joséite-B), native bismuth and electrum. The supergene mineralization with $Fe^{3+}$ hydroxides, bismutite, bismite, petitjeanite, kintoreite, corkite, plumbogummite, jarosite and iodargyrite is relatively rare. The gangue is dominated by quartz with flakes of low-F *phengitic* muscovite and rare siderite and fluorapatite. In addition, a fragment of an Al-rich rock, composed of corundum, andalusite, margarite and muscovite, was identified in the dump material. A total of 32 mineral species was found there.

**Key words:** *ferberite, scheelite, columbite, joséite, gustavite, native bismuth, electrum, supergene minerals, greisen, margarite, corundum, Pekelský vrch near Jihlava*

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