

Summary

The neogenic sulphide mineralization located in tertiary sediments of Lom Břilina in Břilina's fault is of hydrothermal origin. The sulphidic mineralization is associated with fault systems of Eger rift and temperature of fluid crystallization was about 50°C. The mineralization of Břilina's fault is rather monotonous, the marcasite and pyrite is mostly found without a trace elements. In the crystals were also registered zones with the contents of trace elements, especially As and Ni. The contents of As enriched precipitation zones were fluctuating from 0,2 to 5,4 wt. %, Ni enriched zones were ranged from 1,6 to 5,9 wt. %. The precipitation zones with increased As and Ni content were very thin, there were very short time intervals of As and Ni enriched fluids precipitation. In the marcasite crystals were also found the porous zones of clay mineral microinclusions. These zones showed higher content of Al and Si. There is high abundance of Fe-disulfides at Břilina's fault—dispersed in coal bed, or bonded to tectonic zone of the Břilina's fault. Pyrite and marcasite are dispersed in the coal bed and genetically aren't related to sulphides bonded to Břilina's fault.