

Abstract

This bachelor thesis is focused on mineralogy and genesis of Au-bearing ores in southwestern part of the Jílové ore district, in between Petrov and Bohuliby. Crystallization sequence of hydrothermal minerals was identified by textural relationships of mineral phases. Arsenopyrite and chlorite thermometry suggest formation of sulphides and gold at 400-300 °C. Within the scope of this thesis the paragenesis of rock-forming minerals of granodiorite porphyry dikes hosting Au-bearing ores, as well as of late-magmatic to hydrothermal minerals filling in miarolitic cavities in these porphyries, were also interpreted. A hypothesis of granodiorite dikes' origin is suggested as well, involving mixing of magmas with different geochemical signatures.