

Abstract

The bachelor thesis is subdivided into two review parts and one experimental part. The first part focuses on petrography and microthermometric study of fluid inclusions. Petrography chapter lists genetic types of inclusions, and various mechanisms that determine their shape and degree of fill. Emphasis is placed especially on the microthermometric study of fluid inclusions. The phase changes in $\text{H}_2\text{O} - \text{NaCl}$ and $\text{H}_2\text{O} - \text{CO}_2 - \text{salts}$ systems at low and high temperatures are described in detail. A separate chapter is dedicated to interpretation of microthermometric data and to their use in determination of pressure-temperature conditions of minerals formation. The second part of the thesis lists several examples of using the fluid inclusions in the study of hydrothermal deposits and in prospecting of ore deposits (Pb – Zn – fluorite deposits of Mississippi valley type, porphy – type, Cu – ores at Bingham). One chapter is dedicated to Bleida deposit (Morocco), Kanmantoo deposit (Australia) and San Cristobal vein (Peru). This chapter describes geology, mineralogy and fluid inclusion data of these deposits. Third, experimental, chapter deals with hydrothermal mineralization in the Ševětín quarry. It includes the regional geology of Ševětín massif, geology of the quarry and the mineralogy of hydrothermal veins. The two samples collected in the quarry and used in the microthermometric study, represent two types of quartz veins. Microthermometric data are compared with microthermometric data from similar hydrothermal mineralizations located in the other parts of the Blanice graben.

Keywords: fluid inclusions, microthermometry, hydrothermal ore deposits