

Abstract

The thesis deals with the geochemistry and mineralogy of manganese oxides and hydroxides. The thesis describes chemical, physical and mineralogical properties of manganese oxide minerals. The main objective of the experimental part of the thesis is to try to identify oxide minerals of manganese, which are formed on carbonate veins in the Kutná ore district. The methods used in the practical part are X-ray diffraction and Raman spectrometry. Most of the studied minerals are characterized by broad diffraction reflections, indicating their low crystallinity. These phases most commonly correspond to the mineral todorokite and less commonly to rancieite, manganite and cryptomelane. In conclusion, it appears that several new mineral species have been identified for the Kutná Hora ore district, but the interpretation of these phases was itself quite problematic and the results contain a considerable degree of uncertainty.