Abstract

The studied area extends from the Ochtiná Unit in Western Carpathians to the Veitsch Nappe Eastern Alps. The thesis represents a complex multidisciplinary work that combines the structural analysis, petrology and geochronology. The three main objectives of this thesis: reevaluation of the structure, deformation and metamorphic records, and original position of the Ochtiná Unit, understanding the distinct metasomatic processes recorded along the contact of two major units of the Central Western Carpathians – in the Gemer-Vepor Contact Zone – and their relation to distinct tectono-metamorphic events, testing the possible links between the Ochtiná Unit in the Gemer-Vepor Contact Zone of the Western Carpathians and the Veitsch Nappe in the Greywacke Zone of the Eastern Alps, both well known for the Lower Carboniferous shale/schist sequence accompanied by the abundant presence of magnesite ore bodies.

Keywords: Central Western Carpathians, Greywacke Zone, Ochtiná Unit, Veitsch Nappe, U-Pb zircon dating, Phase equilibrium modelling