

This thesis concentrates on a detailed field and structural analysis of the Podolsko complex, Moldanubian unit, Bohemian Massif, complemented by a microstructural study and analysis of magnetic susceptibility (AMS). The Podolsko complex occupies the footwall of a major Variscan normal shear zone and is juxtaposed against the southern to southeastern margin of the Central Bohemian Plutonic complex. During the field work, more than 160 outcrops were examined, the AMS samples were taken at 25 stations, and samples for microstructural studies were taken from 12 localities. On the micro-scale, leucocratic migmatites contain abundant garnet grains which may represent relics of an earlier (ultra-)high pressure metamorphic phase. Retrogression is obvious in other samples of biotite migmatites of the Moldanubian Variegated unit. The retrogression is marked by the presence of sillimanite and chlorite. The main tectonometamorphic event in the Podolsko complex is extensive migmatization coeval with formation of pervasive flat-laying fabric. This is corroborated by the AMS study which indicates concordant steep to flat-laying magnetic and mesoscopic foliations striking NNW–SSE. The AMS also shows that the subhorizontal N–S to NNW–SSE trending magnetic lineations in the Podolsko complex correspond to those in the structurally overlying Červená granodiorite. In conclusion, these data suggest a common principal extension direction and strong coupling between upper brittle and middle anatectic crust in the eastern part of Variscan orogen during gravity-driven collapse of the Teplá–Barrandian unit.