

## English abstract

This work deals with the structural and petrological characteristics of migmatites surrounding Melechov massif near Humpolec. The aim was to assess the existence of multiple anatexis events that could be caused by intrusion of late granites. The results are based on fieldwork, petrographic observations in thin sections of the collected rocks, study of major mineral chemistry in both melanosome and the leucosome of selected migmatites and a comparison of bulk chemical analyses of selected samples.

Studied migmatites are characterized by SSW-NNE oriented migmatitic vertical banding S2, which is intensively transposed into subhorizontal foliation S3 via folding and solid state deformation. Rocks of all studied sites bears common mineral assemblage (Bt + Crd + Sil + Pl + Kfs + Qtz + Ms + Mag). While overall chemical analysis of selected samples do not vary significantly, the chemistry of biotite and cordierite exhibits a significant increase in xMg a slight decrease in Ti from the first to the third locality. Chemistry of other rock-forming minerals do not vary significantly. These differences correlate well with different modal abundance of magnetite, which reaches up to 3% on the locality TM3. Based on the obtained data it can be stated that the studied rocks form a homogeneous domain of the low-pressure migmatites, which have been partially molten during regional horizontal shortening. Subsequent extensional deformation D3 heterogeneously affects the studied rocks in solid-state and is responsible for exhumation of large-scale migmatitic dome.