

## LOCAL SCALE DEFORMATION FOR DEVONIAN CARBONATES OF MORAVO-SILESIA ZONE (CZECH REPUBLIC) DERIVED FROM MAGNETIC FABRICS

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Rock magnetic and AMS studies were a part of wider-scale project that included the tectonic interpretations of paleomagnetic data for Devonian carbonates from Moravo-Silesian zone. Sampling was performed for 5 localities of carbonates with various scale of locality scale deformation (Čelechovice, Josefov, Hranice are rather very weakly deformed, Grygov and Mokrá show locality scale folding). Low values of magnetic susceptibility (less than  $10^{-5}$  SI vol) were obtained in Grygov and some horizons in Čelechovice and Josefov. Hysteresis data indicate that MS in samples with  $K > 10^{-4}$  SI vol is controlled by two phase ferro-magnetic mixture (SD+SP magnetite with wasp waisted hysteresis) as well as by para-/diamagnetic phases. AMS is controlled by carbonate matrix and paramagnetic impurities in carbonates. A few fresh samples had additional low temperature ferrimagnetic phase (goethite?) except magnetite (Mokrá) or hematite (Čelechovice). For Josefov we have selected samples with  $K > 10^{-5}$  SI vol. for further analysis AMS fabric shows a moderately developed clusters of magnetic lineations ( $K_{\max}$ ) and poles to foliations ( $K_{\min}$ ). Higher degree of anisotropy ( $P_j$  of 1.08) was observed for Mokrá (with local folding) and Čelechovice (weakly deformed). Magnetic foliations dip rather steeply to SSE-SE or NW for weakly folded part of Mokrá and Josefov respectively. It may be interpreted as roughly parallel to dominant Variscan NNE-SSW shearing component. For Čelechovice magnetic foliations are subhorizontal (subparallel to monoclinical beds, for Hranice they dip steeply to NE. Magnetic lineations for all localities except Mokrá have low to moderate plunge values and trend in various directions. They rather tend to deflect towards NW-SE regional faulting trends and not to NNE-SSW shearing component. No local correlation with AMS for neighbouring Drahaný Upland sediments was found (Chadima et al. 2006). Locally in Mokrá AMS may reflect the local tight folding. For Grygov  $K_{\max}$  may reflect local fold axis direction. Detailed AMS analysis for several clusters along Čelechovice limestone formation show a coherent fabric up along the stratigraphic sequence beginning from 1<sup>st</sup> dark event (Hladil et. al. 2006). The AARM test control does not show any inverse AMS fabric although AARM data are of lower quality.

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