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Preliminary Rock Magnetic and Paleomagnetic Results of the Holešice and Libkovice Member Transition of the Most Basin (Burdigalian, Czech Republic)

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Abstract

The Most Basin (Fig. 1) is the largest basin within the Ohře Rift in Czech Republic. The Early Miocene Most Formation (topmost part of Most Basin) is divided into 5 members, spinning from Duchcov up to Osek members (Mach *et al.* 2014), and comprise of lacustrine-, alluvial and fluviodeltaic sediments with interjected coal seams.

Two drill cores (AL505 and DO565) of the Holešice and the Libkovice Members from the Most Formation are currently studied. The studied sediments consist mostly of monotonous lacustrine silty clays, thus the paleomagnetic research in combination with chemostratigraphy and cyclostratigraphy (Matys Grygar *et al.* 2014) is required for stratigraphic assignment. So far, e.g., Natural Remanent Magnetization (NRM), Magnetic Susceptibility (MS) and its' anisotropy, Alternating Field demagnetization (AF), and Anhysteretic Remanent Magnetization (ARM; for paleointensity estimation) have been acquired. Preliminary results indicate both normal and reversed polarities of characteristic remanent component. Susceptibility and NRM show generally low values. Paleointensity is derived from NRM_{AF30}/ARM₃₀ ratio and is shown in the Fig. 2.

The next step will be measurement of IRM (Isothermal Remanent Magnetization) acquisition curves, S-Ratio and other rock magnetic parameters.

Keywords: Most Basin, magnetostratigraphy, rock magnetism, Holešice and Libkovice Mb., Burdigalian.

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Fig. 1. Location of the Most Basin.



Fig. 2. Inclination, paleointensity proxy, NRM and MS of the Holešice Mb. and Libkovice Mb. transition interval in the DO565 drill core.

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