



Indication of meta-anthracite by magnetotellurics in the Kőszeg-Rechnitz Penninic window

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In the Eastern end of the Eastern Alps – at the Austrian-Hungarian border – there are Penninic Nappes among them the Kőszeg-Rechnitz tectonic window having complicated metamorphic history from the Jurassic time. The organic material of the Penninic Ocean transformed to meta-anthracite. Its amount in the calc-phyllite has been estimated by the geochemists to 0.2 percent.

Magnetotelluric soundings have been carried out to determine:

- the resistivity decrease due to the above amount of conductive material,
- the different EM distortions in E and B polarization caused by the conductor near and far from it,
- the asthenospheric depth in the area of the tectonic window stepping out from the shallow asthenosphere of the Pannonian Basin,
- looking for relation between geoelectric and seismic crustal structures.