

METALLOGENIC FEATURES OF THE BLACK SILURIAN GRAPTOLITIC SHALES OF PESHKOPIA REGION, NORTHEASTERN ALBANIA

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Litho-geochemical studies of the paleozoic black shales of the Peshkopia region showed that for the most of the analyzed elements, intensified values, i.e. higher values than the typical ones for shales, are present.

Their enrichment coefficients versus the expected typical values are much higher (in order of 10^4 to 10^5). This shows that the material that originated the black shales was enriched in: V, Pb, Zn, Ag, Cu, Co, Ni, as well as Au, etc.. The presence of high amounts of organic matter (Corg = 0,98-3,00%) is attributed to a high amount of terrigenous supply during the formation of the black shales. The sandy, siliceous and marly thin intercalations present within the black shales are a further proof for this. The high values of the aforementioned elements are directly related to the organic matter present in the black graptolitic Silurian Shales (Wenlockian-Ludlovian age). The black thin intercalations show increased values mainly in V, (V_2O_5 :0,1-0,3%), Zn, Ag(0,0015-0,0017%) Pb (0,02%) higher than the expected ones in black shales. The exceptionally high values, for V indicate economic importance of these shales for the future.

Regarding the other elements, their values are up to four times the average expected ones but, however, still not that high so as to be of economic significance except for some cases.

The TR values are the expected ones for black shales.

Sedimentological and stratigraphic studies on these black shales indicate that the elements contained in them originated in a oceanic environment (near mid-ocean ridges) and were the result of hydrothermic solutions, that are related to a volcanic magmatism, of basic and medium type, as a result of sea-floor spreading.

Fe and Mn elements in these shales (of volcanosedimentary type) are further proof for this.