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THE MOBILLITY OF COPPER IN THE STREAM SEDIMENTS OF BISTRIȚEI MOUNTAINS (EASTERN CARPATHIANS - ROMANIA)

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Abstract

This paper presents the quantitative distribution of Cu (total and mobile) in the stream sediments of Leşu and Ursu Brooks in the Bistriței Mountains-Eastern Carpathians.

The geological background reveals the presence of low-grade metamorphic rocks belonging to the Tulgheş Group to which the singenetic polymetallic sulphide mineralization (the Leşu Ursului ore deposit) is associated; this mineralization is considered of volcano-sedimentary origin, metamorphosed during an early Caledonian event.

The concentration of Cu was determined using the atomic absorption spectrometry.

The contents of Cu total from the investigated stream sediments display contents placed in a large range: 17.8 - $87\mu g/g$.

In the stream sediments are presented positive correlations between the contents of Cu total and Cu mobile.

The coefficient of concentration (k) shows that the sediments from the investigated area accumulate higher amounts of Cu than the soils and the vegetation of some other regions.

Keywords: stream sediments, Cu mobile, Cu total, positive correlations, concentration coefficient (k)

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