GEOCHEMICAL AND MINERALOGICAL ANALYSIS OF ORE BODY 139-F1 OF TREPÇA MINE

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Abstract

This study presents a petrographic and mineralogical characterization of samples from the 139-F1 ore body of the Trepça mine, one of the most significant deposits with large reserves in the region. Optical microscopy under reflected and transmitted light was combined with X-ray fluorescence (XRF) and X-ray diffraction (XRD) to determine the chemical and mineralogical composition, while a polarized microscope was employed for petrographic observations.
The identified mineral structures and textures, including metamorphic and hydrothermal features, indicate a complex geological history of ore formation. These results highlight the exploration potential of the 139-F1 ore body and provide valuable insights into the geological processes responsible for mineralization. The findings also offer a basis for developing strategies for sustainable management of Trepça's mineral resources and serve as a foundation for future research in the region.

Key Words: Trepça, Mine, Ore, Body, 139-F1, Mineralogy, Petrography

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