New metallogenetic concepts and sustainability perspectives for non-energy metallic minerals in central Macedonia, Greece
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Abstract

Greece's geology favours a potent and dynamic use of mineral resources, which became a major incentive of the country's mining business, and economic and social growth. Among the Non-Energy Metallic Minerals (NEMM) commodities, base and precious metals, in particular copper and gold, is becoming an increasingly important and rapidly growing target of the mining industry. In the region of central Macedonia, where most of their deposits are hosted, the NEMM occur in a wide range of genetic types related to Alpine orogenic and subduction related ore forming processes extending from Mesozoic to Cenozoic times, and culminating during the Tertiary (Arvanitidis and Amov, 2006). From the global metallogenetic point of view the post-Alpine Tertiary geodynamic systems in SE Europe are potential in producing high-grade ore deposits of base and precious metal sulphide minerals. The classification of NEMM mineralizations to specific genetic types, along with the geological knowledge available, is contributing (a) to more efficient exploration and prospect evaluation (b) to safer assessment of ore potential and economic perspectives (c) to rational management of resource production, and (d) in applying sustainable development practices.

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