

# **Graphite bearing formation of the Ukrainian Shield: problems of genesis and associated mineral deposits**

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The Ukrainian Shield is characterized by abundant graphite mineralization. Graphite mainly associates with Lower – Proterozoic gneiss series. It is traditionally considered that graphite deposits have metamorphic genesis.

Recent investigations have shown the signs of influence of deep endogenous factors on localization and formation of graphite deposits of the Ukrainian Shield:

1. Graphite-bearing areas have a secant character with regard to separate structure-formation zones of the shield.
2. Distribution of ore graphite regions and deposits within graphite bearing areas is uneven: they are located in complex intersections of deep faults.
3. Graphite-bearing regions form the row of concentric structures of about 50 to 150 kilometers in diameter.
4. Formation of graphite deposits was polygenic and polychronic and was realized by active participation in fluid phase.
5. Ore graphite, gold and rare-metal regions of the Ukrainian Shield are often spatially combined.

The obtained facts allow to revise a chance to search mineral deposits associated with graphite formations in the Ukrainian Shield.