**Geology, geochemistry and genesis of the Cu-Zn deposit at Kupferberg (Bavaria, Germany)**

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**Summary**

The objective of the project was the hitherto enigmatic genesis of Bavaria’s largest Cu-Zn deposit at Kupferberg. The application of whole-rock and mineral geochemistry, U-Pb zircon dating, Cu and S isotope analyses revealed the metamorphogenic origin of the deposit. It could be shown, that the genesis of the sulfide lenses is connected to the overthrusting of the allochthonous Münchberg metamorphic complex onto the parautochthonous volcanosedimentary rocks of the Saxothuringian Vogtland Syncline. In the ongoing of this process trace elements like Cu, Zn and Au where mobilized from sedimentary/diagenetic pyrite in the footwall. The product of this process was a metamorphogenic, metal rich fluid from which the sulfides precipitated when it reached the brittle-ductile-transition zone and started boiling. The results further indicate, that similar appearing base metal deposits all around the Münchberg metamorphic complex share the same genetic history.

**Publications**


