

Geochemical Atlas – Erzgebirge and Vogtland

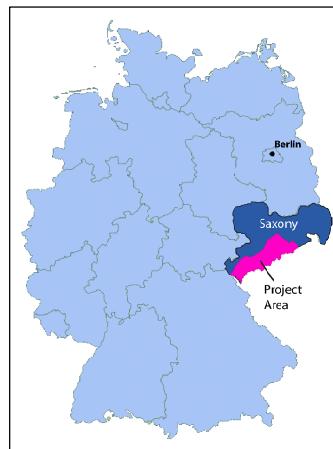
Tellurium in stream sediments

The scarce element tellurium (Te) shows a right skewed log distribution, an arithmetic average of 0.026 mg/kg and a median of 0.020 mg/kg. Its maximum value is 1.5 mg/kg, probably influenced by input from a mining dump. The second highest value is 0.3 mg/kg, and only 10 % of all values exceed 0.1 mg/kg. Large amounts of the analysed samples contain Se below the detection limit of 0.005 mg/kg, and the regional contrasts are not sharply pronounced. The largest area of high Te levels occurs in a nearly circular area of 3 km in diameter with Te > 0.06 mg/kg. It is located in an area of Ordovician metasediments and siliceous shales at the Czech border east of Adorf, SW of the Eibenstock granite. A smaller spot, about 8 km NNE of the latter, coincides with the Brundöbra and Schneckenstein Ba and U deposits.

Lower concentrations of Te > 0.04 mg/kg are widespread across the whole working area, such as in the Johanngeorgenstadt and Schneeberg BiCoNi districts, in parts of the Silurian Lößnitz-Zwönitz syncline, in the Freiberg mining district and in Devonian metapelites NW of the Markersbach granite in the easternmost part of the study area. Further occurrences appear at the Westerzgebirge Complex deposit, possibly related to stratiform mineralisation, and NE of Seiffen where Proterozoic paragneisses and metagranitoids crop out. The lowest Te contents characterise large parts the Eibenstock, Kirchberg, Bergen and Fichtelgebirge granites as well as the gneisses of the southern central Erzgebirge. Te correlates with occurrences of Mo, Se, Sb, Hg and, locally, Cd.

Scale: 1 : 400,000

Kilometres
0 5 10 20



Project partners:



Helmholtz-Institut Freiberg für Ressourcentechnologie



TU BERGAKADEMIE FREIBERG

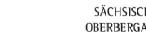


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Project supported by:



Bundesanstalt für
Gewissenschaften und Rohstoffe
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