

TWO DIFFERENT BASALT PROVINCES (MORB VS. WPB) IN THE EVAPORITIC PERMIAN HASELGBIRGE FORMATION (EASTERN ALPS, AUSTRIA) AND POSSIBLE TECTONIC IMPLICATIONS

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The evaporitic Haselgebirge Formation hosts in many places small occurrences of basaltic rocks. The geochemistry of these basalts can potentially provide information about the tectonic setting of the Haselgebirge Formation and the evolution of the Meliata ocean, respectively. We present here 50 new XRF analyses of these basaltic rocks from various localities (Pfennigwiese, Annaberg, Wienern, Hallstatt, Moosegg, Lammertal) and compare the results with previous data from local studies (GRUBER et al., 1991; KIRCHNER, 1979; KIRCHNER, 1980a; KIRCHNER, 1980b; KRALIK et al, 1984; LEITNER et al., 2017; SCHORN et al., 2013; ZIEGLER, 2014; ZIRKL, 1957). Based on the concentrations of immobile trace elements (Zr, Nb, Y, Ti), a predominance of MORB-like compositions is observed for the Lower Austrian occurrences and for the locality Wienern (Grundlsee). On contrast, basalts from the localities Lammertal, Moosegg and Hallstatt have predominantly within-plate-type compositions.

We discuss this striking regional (east-west) difference of basalt types in terms of existing palinspastic models for the Haselgebirge formation (LEITNER et al., 2017; STAMPFLI & BOREL, 2002; McCANN et al., 2006).

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