

## LITHOTECTONIC CORRELATION OF THE POLIČKA AND ZÁBŘEH CRYSTALLINE UNITS

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The Polička and Zábřeh Crystalline units are two parts of Bohemikum situated at the eastern margin of the Bohemian Massif. These units crop out on the opposite sides of a large synform structure covered by Cretaceous sediments. The adjacent antiforms (Žďárské vrchy, Orlické hory) consist of orthogneisses and mica schists with large bodies of metagranites.

Based on study of small-scale structures, the Polička and Zábřeh Crystalline units are considered as being allochthonous in character. Strong stretching lineation, NW–SE trending, and gently inclined to recumbent, tight to isoclinal, asymmetrical folds are typical of the western and central parts of the units. These structures are connected with overthrusting of the studied over the subjacent units. Different structural pattern, mainly NNE–SSW trending, is characteristic of the eastern parts of the studied units. These younger structures originated during overthrusting of Lugodanubicum over Brunovistulicum (the Moldanubian thrust).

Lithotectonic sequences of both the Polička and Zábřeh Crystalline units are very similar. The basal part consists of the **lower amphibolite** belt overlain by a thick complex of medium-grained paragneisses (metagreywackes, metapelites) intruded, in its lower part, by (meta-) granodioritic–tonalitic bodies. The upper part of the lithotectonic sequence consists of the **upper amphibolites**, metapelites, metagreywackes and some metatonalites and other rocks covered by Devonian sediments and is observable only in the southern part of the Zábřeh Crystalline Unit. The metagranodiorites to metatonalites of both units are metaluminous, calc-alkaline volcanic-arc granitoids. These igneous rocks in the Polička Crystalline Unit are slightly more variable and differentiated.

Both lower (from the Polička Crystalline Unit) and upper (from the Zábřeh Crystalline Unit) amphibolites are tholeiitic in character. The **lower amphibolites** of the Polička Crystalline Unit have primitive, flat REE distribution (Fig. 1) and can be interpreted as mid-ocean ridge basalts (MORB) or ocean floor basalts (OFB). These facts are in accord with conclusions of similar investigation of **lower amphibolites** from the Zábřeh and Nové Město units made by Opletal et al. (1985). However, the **upper amphibolites** from the Zábřeh Crystalline Unit are enriched in light REE and their chemistry corresponds closely to within plate basalts (WPB).

We conclude that:

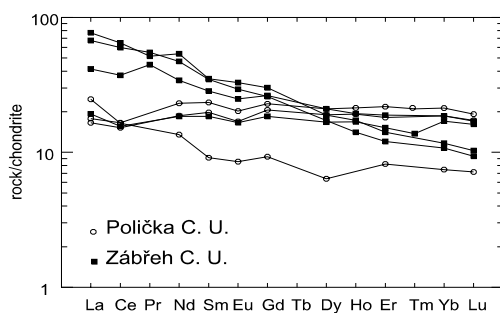


Fig. 1. Chondrite-normalized REE abundances from amphibolites of the Polička and Zábřeh crystalline units (C.U.)

1. **Lower amphibolites** of the Polička and Zábřeh crystalline units are equivalent and their primitive MORB character contrasts with typical continental-crust features of the basement. This is an additional argument for obvious tectonic allochthonity of the studied units.
2. **Upper amphibolites** are not equivalent to lower amphibolites, as they are more evolved and correspond to WPB.