Mladopaleozoické vulkanity Žatecka, sz. Čechy

Late Paleozoic volcanics of the Žatec area, NW Bohemia

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Abstract

A series of bore holes around the town of Žatec revealed a large complex of Permo-Carboniferous (Gzhelian - Asselian) mafic volcanics 150 to 400 m beneath the Tertiary and Cretaceous sedimentary cover. The extent of it is estimated to 80 km² with the maximum thickness of 53 m consisting of several lava sheets. Peripheral volcanoclastic admixture in sediments enlarges the area to roughly 250 km². The rocks show mostly basaltic trachyandesite and in the minority of cases basaltic andesite compositions. Their chemistry is A/SA transitional, high-K and metaluminous, Th highly prevails over U. Acid volcanics, occurring frequently in the vicinity of the area, are entirely absent here. Some trace elements signature indicates a destructive plate margin affinity of these within plate volcanics.

Key words: Permo-Carboniferous, Kladno-Rakovník basin, basaltic andesite, basaltic trachyandesite (shoshonite), petrology, volcanology, geochemistry, tectonomagmatic setting

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