

(0.920 g/cm³), which leads to pressure values in the range of 3 kbar to 4 kbar. According to these data the northeastern part must have been deformed in deeper crustal levels of the Karlstift Shear Zone (between 10 and 13 km) than the south-western one and also than the whole Vitis Shear Zone.

We conclude that crustal blocks between the different Shear Zones suffer different uplift histories.

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ORIGIN OF BANDED AMPHIBOLITES FROM THE STUBACH GROUP ("ALTKRISTALLIN" FORMATION) IN THE CENTRAL TAUERN WINDOW - NEW ASPECTS FROM ZIRCON MORPHOLOGICAL AND TYPOLOGICAL STUDIES

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In the central Tauern Window, four occurrences of polymetamorphic rock units exist tectonically incorporated within Habach Group rocks: The basal amphibolite formation including the Stubach ultramafic complex, the Zwölferzug formation, the Sturmmannseck formation and the Sturmbach formation. These four rock units can be summarized as Stubach Group (the former "amphibolite sequence" of the "Altkristallin" formation sensu FRASL & FRANK, 1966) due to lithological as well as zircon morphological and typological data (LOTH & HÖLL, 1993). The Stubach Group consists of amphibolites, ultramafic rocks and several gneiss types of orthogenic and paragenic origin. The most abundant rock types are banded amphibolites ("Bänderamphibolite"). The banding is characterized by a succession of amphibolite and leucocratic hornblende-plagioclase-gneiss layers and changing grain sizes of distinct amphibolite layers. The thickness of the gneisses ranges from a few mm (characteristic in the basal amphibolite formation) to more than one m (common in the Sturmmannseck formation). The contacts of the amphibolites and gneisses are sharp. The origin of the banded amphibolites has been discussed controversially. The amphibolites and hornblende-plagioclase-gneisses were mostly interpreted as one related rock unit formed by Variscan anatexis. Our investigations of eight amphibolites and ten hornblende-plagioclase-gneisses from the basal amphibolite, the Zwölferzug, and the Sturmmannseck formations yielded different zircon populations in the two rock types. The zircons from the amphibolites are mostly anhedral; rounded crystals and long prismatic needles are seldom. The

typological data cannot be identified unambiguously in any sample. On the contrary zircons from hornblende-plagioclase-gneisses are euhedral or subhedral. Their morphological characteristics are very homogeneous. The mean points of the zircon populations of all investigated hornblende-plagioclase-gneisses plot in the "S₁₂" and "S₁₃" fields of the zircon typology diagram of PUPIN (1980), and a plutonic protolith is inferred for the gneisses.

We interpret the amphibolites and orthogenic hornblende-plagioclase gneisses of the Stubach Group as two pre-Variscan rock types. However, their origin is not yet sufficiently constrained: They may have formed in a layered intrusion or in a layered gabbro sequence of an ophiolite complex or as leucocratic dikes within mafic rocks. In the latter case, an age difference between both rock types should exist. A U-Pb zircon dating of our samples is in preparation.

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PETROPHYSICAL INVESTIGATIONS IN THE SOUTHERN BOHEMIAN MASSIF (AUSTRIA): DATA - ACQUISITION, - ORGANIZATION AND - INTERPRETATION

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Within the framework of a comprehensive geophysical study of the Southern Bohemian Massif (Austria) predominantly magmatic and some metamorphic rocks of the Moldanubian and Moravian Zone have been sampled for the purpose of petrophysical investigations.

Data-Acquisition: Laboratory measurements on 2600 samples established the petrophysical parameters *Density*, *Magnetic Susceptibility*, *Natural Remanent Magnetization* and *Königsberger Ratio*.

Data-Organization: Using the dBase IV - program package a special database system ("rockbase") running on a MS-DOS PC has been developed to facilitate organization and administration of petrophysical data.

Data Interpretation: According to geological and petrological considerations selected data files exported from the database are used as input files for commercial software, e.g. Grapher for Windows, to visualize the information contained in the