it is postulated that the amount of reworked Cadomian basement is quite substantial.

The ages >1206 Ma are interpreted as minimum ages for magmatic or metamorphic zircon growth during the Proterozoic and Archean. It cannot be decided whether these old zircons belong to the Cadomian or to the Moldanubian (basement-) sequences.

Conclusion: The zircon investigations in the Rastenberg granodiorite clearly demonstrate the presence of reworked Cadomian and older, possibly Archean basement within or at least below the present Moldanubian crustal rock sequences. It is not yet clear whether the Cadomian rocks belong to the overridden basement complex of the "Bruno-Vistulikum" microplate or whether they belong to the Moldanubian microplate probably having been incorporated there during earlier stages of the Variscan orogeny. Geochemistry and relatively low Sr isotope systematics favor the latter model (LIEW et al., 1989; KLÖTZLI, 1993).

The study demonstrates the complex age distribution of zircons found within one single small plutonic body due to both zircon inheritance from rock sequences with varying ages and new zircon growth during magma generation. Only precise investigation of zircon typology and single zircon dating can unravel these complex age patterns. The study also clearly demonstrates the usefulness of zircon evaporation analysis when combined with conventional U-Pb analysis.

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THE EFFECT OF THE METAMORPHIC GRADE ON DEFORMATIONAL MECHANISMS WITHIN THE VYSOKA HOLE BASEMENT THRUST SHEET (JESENIKY MTS.)

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The Vysoká hole basement thrust sheet presents the stack of rocks transported to the NE during Variscan deformation. The base of the unit is formed by Cadomian

metagranitoids and migmatites and the upper part by Devonian metapelites. It is possible to recognize metamorphic zonation decreasing from the sillimanite zone on the West to the chlorite zone on the East and diminishing as well from the top to the bottom. The metamorphic isograde cross-cut the lithological boundaries between metasediments and quartz-feldspatitic rocks.

This study presents the correlation between deformational microstructures within quartz-feldspatic rocks and metamorphic grade determined from mineral assemblages in metapelites.

Typical deformational microstructures of metagranitoids in the garnet zone is a dynamically recrystallized plagioclase producing the main part of the fine-grained matrix. As well, ribbon structure of recrystallized quartz, that is a rheologically weak phase, presents a characteristic structure of the rock. The deformational mechanism in garnet zone corresponds to dislocation creep in both plagioclase and quartz. Biotite zone in metapelites corresponds with the formation of wide quartz lenses and destabilisation of plagioclase to fine-grained mica-rich matrix.

In the chlorite zone, plagioclase is completely replaced by fine-grained sericite, that is the main matrix forming mineral, and quartz exhibits big isolated grains of asymmetric shape. Thus, quartz in biotite and chlorite zones represents a harder phase and its main deformational mechanism is low-temperature plasticity. In the mica-rich matrix predominate the grain-size sensitive creep.

From the rheological point of view, the load bearing framework structure characterizes the medium grade part of the sheet, consequently the low grade parts exhibit typical interconnected weak layer rheology. These changes in deformational mechanisms connected with metamorphic grade can play an important role in progressive strain localisation and for rheological behaviour of middle to lower crust.

THE SOUTH BOHEMIAN PLUTON - A COMPLEX BATHOLITH WITH A MULTIPLE INTRUSION HISTORY

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The Bohemian Massif is part of the Hercynian orogenic belt of Europe which comprises different metamorphic units and granitic intrusions such as the South Bohemian Pluton. This pluton extends for 160 km from Jihlava (Czech Republic) in the north to the Danube river in the south, and forms large areas in the Austrian part of the Bohemian Massif. The northern and western part of the Bohemian Massif in Austria is mainly built up by intrusives of the composite South Bohemian Pluton. Besides minor basic or intermediate plutonic rock this intrusive complex