

Plagioclases span much of the crystallization history throughout the magmatic series, generally decreasing in anorthite component from basic to acid plutonic varieties. In volcanic rock the plagioclase is in the bytownite–labradorite range.

Potassium feldspar of orthoclase composition is typical for the monzonite and syenite. It forms large crystals, disposed between plagioclase. The orthoclase is the major carrier for Sr, Ba, Pb, Rb.

Amphibole is the main mafic mineral in all rock types, with Mg# 58-97. In the classification diagram of Leake et al. (1997), the amphibole from the plutonic rock falls in the field of the magnesio hornblende and ferrohornblende, whereas the amphibole from the volcanic rocks is tschermakite.

Clinopyroxene is a characteristic mineral for all rock types with Mg# 58-84. It forms deep resorption nuclei or single grains with euhedral contours. Compositionally it is augite and diopside.

U-Pb single zircon method was used for the precise geochronological dating of the Vitosha volcano-plutonic edifice. Sr and Nd whole rock and Hf–zircon tracing have been used to clarify the origin of the studied rocks.

Following U-Pb single zircon age data have been obtained for the plutonic rocks: gabbro  $81.58 \pm 0.23$ , monzonite  $82.45 \pm 0.4$  and syenite  $79.67 \pm 0.76$ . U-Pb data of single zircon grains from an andesite plot on a discordia with a Paleozoic age.

Strontium isotope data are quite variable, ranging between 0.7044 and 0.7042 in the less evolved gabbro and andesite, through 0.7052 in the monzonite, to 0.7091 in the syenite. Nd (80 Ma) values also show a large variation, from 0.37 to 2.74.

The new age data reported here provide that the rocks of the Vitosha pluton range between 82.4 and 79.7 Ma. Chemistry of the parental magma suggests similarity with the other plutonic suites from the axial part of the western Srednogorie. Compositional variations of the rock-forming minerals indicate calc-alkaline I-type signature for the Vitosha pluton. Sr and Nd isotope data indicate the presence of depleted mantle source for the parental magma, whereas generation of most evolved magmas requires different degree of crystal contamination. The upper discordia intercept U-Pb zircon of Paleozoic age suggest that the contaminant must have been lithologies from the Variscan basement.

## **New Hippopotamid finds in Eurotas Valley (Laconia, Greece)**

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A new locality tracked down in the Eurotas Valley (Laconia, Greece) yielded mammalian dental remains of a young individual referred to as *Hippopotamus antiquus*. The findings are of very large size compared to already known specimens from Greece and W. Europe. The new locality is biochronologically dated at the Early–Middle Pleistocene.

## **On Pliocene mammal remains in the area of Epanomi (Macedonia, Greece)**

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Neogene/Quaternary deposits along the east shoreline of Thermaikos Gulf (Thessaloniki, Greece) occasionally yielded several isolated fossil vertebrate remains. A proboscidean tusk and an equid astragalus have been recently unearthed from a new