subsequent moderately welded Kizilkaya-ignimbrite is of similar age, 3.8 ± 0.2 m.y., if bulk rock samples are regarded, while biotite and feldspars produce ages around 4.5 m.y. The discrepancy may result from deficits in Ar caoused by alteration, tempering during welding, or both. Handpicked bulk-ignimbrite samples from Incesu-ignimbrite yield data of 2.8 m.y.

Geochemical analyses classified the Ignimbrites as high-K calc-alkaline rhyolites. Incesu-Ignimbrite is strongly enriched in incompatible and HFS - elements, and REE relative to the others. Discrimination diagrams classify the units as within-plate or A-type rhyolite while the others match the fields for orogenic/volcanic arc S and I-type. Crystallization differentiation of the ryolites from mafic lavas may be a suitable petrogenetical model except for the A-type Incesu-Ignimbrite, unless age and stratigraphic relationships would not oppose for the hypothetical parental magmas occur only at the end of the volcanic activity in Cappadocia. Therefore, a model of a two stage crustal anatexis is favoured: the volcanic arc S and I-type rhyolites of the lower series represent the first phase of melt extraction while the A-type Incesu-Ignimbrite of the upper series, close to the end of the ignimbrite activity, generated during the second melt extraction phase.

PALEOGENE AND NEOGENE DEPOSITS OF KORCA - MOKËR DEPRESSION AND THEIR COALBEARING (NORTHERN PART OF THE ALBANIAN - THESSALIAN TROUGH).

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This depression constitutes North - Western part of Albanian - Thessalian Trough (Meso-hellenic Trough) and represents a longitudinal depression from south of Kalambaka (Greece) continuing near of Librazhd - Town (Albania).

Its lenght is 175 km and its wideness 10-30 km (D. Shkupi, 1984).

Albanian - Thesselian trough includes three main basins: Gora - Mokra basin, Mborje - Drenova basin (which is united with Grevena basin in Greece) and Kalambaka - Trikalas basin. This trough is located above Mirdita zone and Korabi (pelagonian) one and is created by the subduction of Ionian Zone during in Middle Eocene. This depression includes deposits from Middle-Eocene until Langhian. There are not Seravalian and Pliocene deposits.

Gora-Mokra basin - Molasse deposits are placed above Upper Triassic-Lower Jurassic limestones, ophiolites, Cretaceous deposits and are represented by Middle-Upper Eocene, Oligocene, Aquitanian and Burdigalian deposits.

Mborje-Drenova basin - This basin is the continiuation of Grevena basin in Greece forming an analogous syncline as Gora-Mokra one.

Molasse deposits are placed above ophiolites and Upper Triassic - Lower Jurassic limestones and are represented by Middle-Upper Eocene, Oligocene (Stampian-Chattian), Aquitanian, Burdigalien and Langhian deposits.

IMPLICATIONS FROM ROCK CHEMICAL ANALYSIS AND ZIRCON CRYSTAL MORPHOLOGY FOR THE ORIGIN OF PELAGONIAN BASEMENT ROCKS IN THE KAMVOUNIA MOUNTAIN, NORTH THESSALY.

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In the region of the Kamvounia mountains, north Thessaly, granite, gneiss, mylonitic gneiss, ampibolite and various schists constitute the Pelagonian basement which suffered Variscan and Alpine metamorphism. Chemical analyses of major and trace elements allow implications about the origin of these rocks. The mineralogical and chemical compositions of the granitoids (granites s. str. and granodiorites of the Deskati series) indicate a Caledonian I-type character. Using major element discrimination criteria to discern between ortho- and paragneiss, the gneisses and mylonites show constantly igneous origin.

The trace element patterns (e.g. high Rb/Nb and Rb/Zr ratios) of the granites and granodiorite show characteristics of subduction-collision related intrusives. The occurrence of large volumes of undeformed granites attribute them to a late-to post- collisional setting of the variscan Orogeny. The trace element petterns of the gneisses and mylonites are identical to those of the undeformed granites to which they show transitions in the field. We propose that the granites were the protoliths of the gneisses and mylonites but escaped deformation. Therefore, the deformation of the gneissees and mylonites is likely to be of Alpine age.

The external morphology of zircon crystals from the granites and granodiorites is characteristic for magma of a mantle origin. Cathodoluminescence examination of zircons indicate only one growth phase of the zircon crystals. This points to an uninterrupted crystallization process in the magma.

The Caledonian I-type character, the evolution of the zircons, and the post-deformation emplacement allow to correlate these granitic rocks with post-closure uplift in e late stage of the Variscan oregenic area. Granites in such a geotectonic setting have generally an important mantle component.

Amphibolites and amphibolitic schists, which suffered Variscan medium-grade

