

GEOLOGY OF THE BALIKESİR-BANDIRMA REGION (NORTHWEST ANATOLIA), PETROLOGY OF THE TERTIARY VOLCANISM AND ITS REGIONAL DISTRIBUTION

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ABSTRACT.— In the studied area, the basement is formed by the Late Palaeozoic aged metamorphic Fazlıdağ formation which contains locally lenses and bands of marble and serpentinite. These rocks are cut by a granitic and granodioritic intrusion called Kapıdağı granite which is Late Palaeozoic in age. It is unconformably overlain by the Early Triassic aged Karakaya formation consisting of a wide range of detritic rocks and some limestone blocks. This formation is underlain by the Middle to Late Triassic aged Çaltepe formation consisting of conglomerate, sandstone, sandy limestone and limestone and Late Jurassic to Early Cretaceous aged Akçakoyun formation respectively. The latter one mainly consists of limestones and unconformably overlies the Çaltepe formation. Towards the top of this sequence there is the Late Cretaceous aged Yayla melange which is composed of sedimentary, metamorphic and ophiolitic association and has a tectonic contact within each other. The Tertiary in the region is characterized by Paleogene aged Çataldağ and Ilıca-Şamlı granodiorites and granites, some terrestrial sedimentary rocks which one of Mio-Pliocene age and Miocene to Pliocene aged are also exposed. The Quaternary is cropped out at some thin deposits. In this study petrochemical analyses of the volcanic rocks have been carried out and it has been understood that they are in calc-alkaline character and also have some crustal features. In the light of these data the volcanic rocks have been compared with other volcanics of the region and their distribution has also been given.