

core complex", followed, while the compressive regime is displaced even southerly, in the area of the Mediterranean ridge.

ON THE VOLCANISM IN THE AEGEAN AREA

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The volcanoes of the Aegean area are studied from the geological and petrochemical point of view. Emphasis is placed in the case of the Santorini volcanoes. Attention has been called to the study of the evolution process of the magma differentiation in their magma chambers. Cases of these magma chambers isolation from the asthenosphere (mantle) are also examined. On the basis of the obtained data it is suggested that the kind of the rocks of the last eruption of an Aegean volcano makes it easy to conclude, if this volcano is able to undergo or not new eruptions. Thus, in the case of alkali rhyolites the question is of a discharged magma chamber, i.e. of an extinct volcano, whereas the presence of dacites with tendency to rhyolite indicates a serious weakness of the magma chamber, i.e. a magma hardly able to erupt at the surface.

ENGINEERING GEOLOGY OF SELECTED DISUSED ANDESITE QUARRIES, IN IZMIR-TURKEY

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The city of Izmir has been founded over Miocene aged volcanic rocks, Neogene sedimentary rocks and Quaternary sediments. Volcanic rocks are mainly consisted of tuffs, agglomerates and andesite lavas. Good quality andesites have been widely used as building stones in construction of buildings and other engineering structures in Izmir, in the past. Andesites were obtained from the quarries opened up in the periphery of the city. As the city has expanded over the years, these andesite quarries remained in the middle of the dwelling areas and then the quarrying operations were stopped without taking any precautions against slope failures. Recently, there has been an increased interest shown to make use of the disused andesite quarries after carrying out engineering geological investigations and rock slope reinforcement, because of the shortage of free space in the city centre.

In this paper, initially a brief review of the geology of Izmir and its surroundings will be explained. The engineering geological properties of andesites will be discussed and the details of the engineering geological studies carried out in these disused andesite quarries will be given. The engineering geological studies involved detailed disconti-