age, and shows similarities with the Santonian rudist association determined from the limestones of the Izmir-Ankere Zone.

In the north of Menderes Massif, the rudists are observed in the Akhiser and Selçuk arees. The rudists are very sparse and are represented by the fragments (probably Radiolitics). New investigations on the stratigraphy of the Menderes Massif suggest that the rudist beering recrystalline limestones of the Akhiser eree contain foraminifers indicating an Upper Campenian ege.

HIGH FLUORINE CONTENTS OF THE PLIOCENE VOLCANIC ROCKS IN THE GÖLCÜK AREA, ISPARTA/WESTERN TAURIDES

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The Gölcük area in central Anatolia represents a post tectonic Pliocene volcanism upon a Mesozoic paleorift in the entire Taurides margin. In this connection the tectonic structures of the region result from the main alpine orogenic phases of the Helleno-Tauric belt. The study area consists of sedimentary and volcanic rocks. As allochthonous, the Triassic through Upper Cretaceous Akdag-limestone and the Upper Cretaceous to Lower Tertiary volcano-sedimentary series constitute the basement rocks. They ere transgressively overlain by marine clastic series of Eocene and conglomerate of Oligocene age. The volcanic rocks are tephriphonolite (stage i), pyroclastic series represented by frieble tuff, ignimbrite, and pumice tuff (stage ii), and trachyandesite with trachyte (stage iii) as vents, dikes, and volcanic domes. They indicate a sodic alkaline character.

As F-bearing minerals, the volcanics consist of pyroxene, hornblende, biotite, fluorapatite, and extreme small fluorite crystals. Additionally, the glassy groundmass can be added to the F-carriers. The F-contents in the volcanic rocks show a close correlation with P_2O_5 and are generally controlled by fluorapatite consequently. This assumption can be established by the predominance of high REE contents. Moreover, it is a novelty that the F-contents display a remarkable depletion from basic towards the acidic rocks which might be attributed to discharging of the F portions during fumarolic activity.