ABSTRACTS OF THE PAPERS PUBLISHED ONLY IN THE TURKISH EDITION OF THIS BULLETIN

OOLITE AND PISOLITE OCCURRENCE WITHIN THE PLIOCENE - QUATERNARY AGE TRAVERTUNE IN MUT REGION

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ABSTRACT.- There exists oolite and pisolite occurrences within travertine of Pliocene-Quaternary age at north-east of Mut (İçel). The oolite grains are smaller than 2 mm, whereas pisolite grains are between 2 mm and 1 cm in size. These are rounded and ellipsoidal in shape. Each oolite and pisolite grain contains a nucleus at its centre, elastics carbonate sand grain, surrounded by laminated concentric calcite layers. These occurrences developed from roof, mixing grains in the splashing pool.

LITHOSTRATIGRAPHY AND FACIES CHARACTERISTICS OF THE CONTINENTAL - SHALLOW - MARINE MIOCENE DEPOSITS (ZARA - SİVAS)

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ABSTRACT.- The and space relationships of sedimentary environments and depositional evolution of Sivas Miocene Basin is studied south of Zara town. 2 formations and 4 members are defined. Early Miocene Ağılkaya formation (1900 m) is composed of Karayün member (alluvial fan and fluvial deposits), Hafik member (sabkhaic gypsums) and Karacaören member (shallow marine). On the other hand Early-Middle Miocene Eğribucak formation (550 m) is only represented by Sekitarla member (fluvial deposits) in this part of the basin. Facies analyses reveal 13 lithofacies representing deposition in lagoon to shallow marine, tidal flat, playa and sabkha, alluvial fan and fluvial environments. The currently debated and controversial relative age of the Hafik member gypsum deposits is assigned to (?) Oligocene - Early Miocene based on the stratigraphic relations observed throughout the basin. Petrographic data together with North-Northwestern paleocurrent directions indicate an ophiolithic source area situated to the South-Southeast of the basin.

LATE PLIOCENE PELECYPODA AND GASTROPODA CONTENT AND STRATIGRAPHY OF THE DATÇA PENINSULA (MUĞLA - SW ANATOLIA)

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ABSTRACT.- This study examined the paleontology and stratigraphy of the Neogene rock units exposed around Datça Peninsula basing on the pelecypoda and gastropoda fauna. One of the fosil specimens *(Hydrobia tanerae* n.sp.) which are determined from the taken measured stratigraphic sections belonging to Yıldırımlı formation was described as a new species. The age of Neogene units in the investigated area is determinal as Late Piacencian with the pelecypoda and gastropoda fauna. According to these marine and fresh water fauna, it is found that the area was a lagoon in Late Piacencian. ESR (Electron Spin Resonance) Age Method was applied on the four fossil specimens and found 1.891-1.988 million years. This result supported the Late Piacencian age.

CLAY MINERALIZATION IN HYDROTHERMALLY ALTERED TEKKE VOLCANICS (ÇUBUK, ANKARA NE)

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ABSTRACT.- The Neogene volcanics represented by andesites, andestitic tuffs and trachy-andesites in the northeast of Ankara contain hydrothermally altered clay mineralization in places. In the alteration zones developed in the areas where the hydrothermal fluids leaking along faults and joints alter volcanic rocks, silicifications and iron oxides and sulfides are observed next to the clays minerals. As a result of alteration starting from the unaltered rocks, different zones poor in clay and silicified have been developed. In this aspect various petrographic types have been distinguished in the from of unaltered volcanic rocks, volcanic rocks poor in alteration, highly altered volcanic rock and silicified rocks. In addition, gold has been found in the samples around Gicik. The clay minerals formed as a result of hydrothermal alteration of the Neogene volcanics have been determined as kaolinite, montmorillonite and illite, the silicate minerals as quartz and cristobalite, and ferrous compounds as pyrite, very little calcopyrite, hematite, lepidoclorite and goethite. Kaolinization has generally been obsered around the Gicik village and Ilgaz hill, smecticization around the Kurtsivrisi village, and illitization in both regions. Their zonation has been developed in the form of kaolinite, montmorillonite and illite from the inner zone which is nearest the fault, montmorillonite and illite have been formed in the more outer zone. In the fluid inclusion studies carried out, the homogenization heat of quarts has been found to be between 170 °C and 140 °C. This datum shows that the clay mineralization due to alteration within the volcanic rocks has been realized under epithermal conditions. However, the presence of gold in the environment makes us think that the hydrothermal solitions coming from the magma have also been effective in the alteration in addition to the main factor, the meteoric waters.