

**O 4. PRELIMINARY FINDINGS ON RARE EARTH ELEMENT GEOCHEMISTRY OF SOILS  
IN SOUTHERN KONYA (TURKEY)**

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**ABSTRACT:** The study area located in southern part of Konya (Turkey) is dominated by sedimentary rocks, ophiolitic rocks and volcanites. The topsoils (0-20 cm) show that it is dominated by calcite, quartz, dolomite, plagioclase and kaolinite. The ophiolitic soils located on ophiolitic units mainly comprise serpentinite, titanomagnetite, magnetite, chlorite, amphibole, hematite, goethite, talc, smectite, diopside, quartz, calcite, and Cr-rich minerals. The volcanic soils located on volcanic rocks mainly comprise feldspar, amphibole, jarosite, magnetite, mica/illite, kaolinite, quartz, and calcite. The sedimentary soils located on carbonate rocks mainly consist of calcite and dolomite. 65 investigated topsoil samples in southern Konya have 92.88 ppm (mg/kg) average REE amount. The average light rare earth element (LREE) concentration (84.81 ppm) in studied topsoils is higher than the average heavy rare earth element (HREE) concentration (8.07 ppm). The REE distribution patterns of the topsoils are similar to those of Post-Archean Australian Shale (PAAS), North American Shale Composite (NASC) and upper crust (UC).

**Keywords:** *REE, geochemistry, soil, southern Konya, Turkey.*