

Postvolcanic processes in the Dolerites of Javakheti Upland (on the example of the Gomareti and Akhalkalaki plateaus)

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This paper presents the results of a complex study of secondary mineralization processes in hydrothermally altered zones upper Pliocene-Lower Pleistocene dolerite (1,7 million years) of the Gomareti and Akhalkalaki Plateau. Within the zone, several sites with different degrees of hydrothermal metamorphism have been identified; A wide range of secondary minerals are generally characterized dolerites of the hydrothermally altered zone of Gomareti Plateau: Ca and Na-Ca zeolites (shabazzite, thomsonite), clay minerals (montmorillonite, beidellite) carbonate (calcite) and pumpellyite. The range of secondary minerals in hydrothermally altered dolerites of Akhalkalaki Plateau (section Toki) is much narrow: The major minerals are Radial-Fibrous Aragonite, slightly calcite and dolomite; The formation of secondary minerals occurs by the total or partial dissolution of rock forming minerals (plagioclase, olivine, pyroxene) by influence of low-temperature hydrothermal solutions. Secondary mineralization process occur under neutral and alkaline in environment by Si low activities conditions.