

On the Genesis of Amphibolites from the Buulgen Series of the Caucasus Main Range Zone.

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The Buulgen Series is distributed within the Pass subzone of the Main Caucasus Range. This study is based on the processing and generalization of existing literature concerning the genesis of amphibolites of the Buulgen Series and presents a new interpretation of available analytical data made possible by the application of modern diagrams and methodological approaches. Discrimination diagrams proposed by Garrels and Mackenzie (1971), Honkamo (1987), and Walker et al. (1960) were used. A detailed petrological and petrogeochemical characterization of the amphibolites is provided. The Buulgen Series is subdivided into four units: the Gvandra, Klich, Sisina, and Vertskhlistba series. Amphibolites occur only within the Gvandra and Klich series. In the Gvandra series, amphibolites are developed in large quantities in the lower part of the succession, whereas the Klich series is composed almost entirely of amphibolites. Based on mineralogical composition and structural-textural features, plagioclase, pyroxene, garnet, epidote, and cummingtonite amphibolites are distinguished. The integrated use of genetic criteria allows the identification of both para-amphibolites and ortho-amphibolites within the amphibolites of the Buulgen Series.