Graphitization of metasedimentary rocks of the western Konya region

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The Paleozoic-Mesozoic metasedimentary rocks in the study area are metacarbonate, metachert, metapelite, metasandstone and metaconglomerate. Graphites layers are 1cm to 2m thick and extend laterally for several meters and, are intercalated with metasedimentary rocks. Generally the graphite is blackdark black in color, with a well developed cleavage and is concordant with the cleavage of the host rocks. In addition, the crystal and flake graphites formed in metasedimentary rocks and are mostly aligned parallel to the cleavage planes. These metamorphic rocks are subjected to shearing and granulation providing structural control for the development of graphite. It was probably this phenomenon that first led to emphasize the relationship between graphite and metasedimentary rocks. Graphite mineralization has been controlled by bedding, microfractures and granulations.

Briefly, the metamorphism has converted carbonaceous matter into graphite.