Mineralogy of graphite from the graphite-bearing schist of Wadi Lawi, Southeastern Desert, Egypt

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The graphitized schist of Wadi Lawi, south eastern desert, Egypt had been investigated to exhibit the mineralogy of the graphitic material and its structural state to reveal its conditions. The graphite is included in quartz-plagioclase-actinolite-graphite schist and actinolite-talc-chlorite-graphite schist. It occurs as bundles and laths, showing Rmax in oil from 10 to 14. Magnetite is the major associate with graphite disposed in the groundmass. XRD, DTA patterns, TEM and TMD investigations of separated graphitic material, show that it ranges in its structure from semi-graphite (graphite-d1) to graphite (full-ordered graphite). δ¹³C (PDB) with an average of 23.06 ‰, in addition to IR investigations for these graphitic materials indicate their organogenic origin. The present author suggests the possibility that Wadi Lawi graphitic material is related to post depositional contaminations. XRD and DTA can also declare that the graphitic material was formed under conditions of green schist faces in a temperature range of 400 to 600° C under a pressure of 4 to 6 kb.

Biography
Ahmed M. Bishady is currently a Professor at the Department of Geology, Menoufia University, Egypt. He has completed his PhD from Ain Shams University, Egypt in 1975. He has about 40 scientific articles published in edited journals and international conferences in the fields of petrology, geochemistry and mineralogy. He is also the Reviewer for some Egyptian scientific bulletins and journals.

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