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Contribution of the Study of Inclusion Fluids to the Knowledge of the Conditions of Formation of the Layers with SN-W of Central Hoggar, Algeria

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Abstract : The ground of study is localized in central Hoggar and contains the most important layers and Stanno-Wolframifére indices of the metallogenic province have tin and wolfram of Hoggar. These layers are always associate with post-orogenetic Panafrican magmatism (GMR) which was set up in the form of circumscribed granitic solid masses of relatively reduced size or in dykes of microgranites. The area studied are in Tounine, Aléméda, Hanana-hananére, Tim Amzi, El Karoussa. The geochemical data processing watch peralumineux character rich person out of Li-F and rare metals (MR). Pegmatites of the type stocksheider, formations of greisens and mineralization Sn-W accompany these granites. Mineralisation Sn-W, expressed particularly well in the seams of quartz and greinsen is spacialement and génitiquement dependent on the maguatism specific to white feldspar-topaz (GMR) (grained and microgrenu). the mineral paragenesis is primarily made up of wolframite and cassetérite. The minerals of gangue are represented by quartz, topaz, the micas containing lithia and the fluorite. A microthermometric study of fluid inclusions related to the granites end on white feldspar-topaz of Hanana, topaz of Hananére, the microgranite of Aléméda, and the seams of quartz D In Tounine (Tiftazouine) and of Tim Amzi; allows to characterize the fluids associated with these layers. It comes out from this study the abundance of aqueous inclusions and three types of fluids were given: -Hot and salted fluids rich in volatile elements particularly CO2; -follow-ups by aquo-carbonic fluids less hot and moderately salted with temperatures of homogenisations (HT) average respectively of 300°C and 180°C; -finally of the aqueous fluids very little salted (≤1%pds.éq.NaCl) and definitely colder. An estimate depths éteé made starting from the diagram of (Haas, 1971) in the system H2O-NaCl, the results are the following: • Inclusion aqueous (L and Lw): correspond to depths of about 50 à500m. • Inclusions aquo-carbonic (Lcw and Lwc): correspond to depths of L order of 600 with 1200m • Carbonic inclusion (Vcw): correspond to depths about 1400à1800m

Keywords : fluid inclusions microthermométrie, cassiterite wolframite, granites with rare metals, Central Hoggar
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