

FLUIDS ASSOCIATED TO Fe-ORES IN THE ESPINHAÇO SUPERGROUP, SERRA DO SAPO, CONCEIÇÃO DO MATO DENTRO, MINAS GERAIS, BRAZIL

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RESUMO: Textural relationship analysis correlated to the research of preserved FI inside crystals of granular hematite and specularite located at Serra do Sapo, Espinhaço Supergroup, Minas Gerais, Brazil, suggest two genetic models. The first is massive (concordant ?) and the other is tabular type, clearly discordant, probably formed by assisted fluid diffusion. The first stage of mineralization originated granular hematite crystals, composed by fluids of medium/ high temperature and high salinity (pressure: 310bar; depth: 1,500m). Deep groundwaters could be responsible for the high salinity of these fluids (as observed in the Canadian shield by Frate & Fritz, 1987 e Guha & Kanwar, 1987). These fluids, strongly oxidants, contributed for total magnetite transformation into hematite, as shown by the occurrence of maghemite. Specularite crystals, associated with quartz, were generated later to granular hematite, through penetration of intermediate salinity fluids with temperatures around 250°C. Lithium in the mineralizing fluids, mainly in fluids contained in the specularite, may be an evidence of pegmatitic magmatic source. Marciano et al, 1994 confirmed the presence of Li as element associated to fluids of pegmatitic bodies located near Serra do Sapo, at Santa Maria de Itabira. This present paper proposes that the formation of specularites, in Serra do Sapo, is time and genetically associated to the Brasiliano event and is so related to the formation of pegmatites. The Sb content increases in specularite can also be genetically related to the Brasiliano pegmatites, once this element participates in the structure of tantalates/niobates, which are common minerals in the magmatic bodies (Memetova et al, 2005). Carbonic phases found in intergranular inclusions could be associated to a secondary fluid event. There are probably genetic relations between these solutions and the carbonic fluids found in hematites of Jacutinga (Lüders et al, 2005) and later quartz in specularite-quartz veins in Conceição (Rosière & Rios, 2004) and even in the primary carbonic fluids associated to the pegmatites from Santa Maria de Itabira region (Marciano et al, 1994).

PALAVRAS-CHAVE: HEMATITE; METALOGENESIS; ESPINHAÇO SUPERGROUP.