

ALEXANDRITE AT MINAÇU, GOIÁS, AND ITS FORMATION CONDITIONS.

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A new deposit of Alexandrite, a rare gem, occurs together with chrysoberyl at the southeastern border of the tin-bearing granitic complex Serra Dourada, Minaçu, Goiás. The chrysoberyl mineralization is restricted to the pelitic rocks which border the complex. Chrysoberyl and the valuable Alexandrite (about 15%) form porphyroblasts of up to 3 cm with inclusions of quartz, muscovite, biotite, garnet, staurolite and monazite beside fluid inclusions in a matrix of a staurolite-garnet-kyanite schist. The formation of the chrysoberyl/alexandrite mineralization is related to an event of remobilization of beryllium from the granite without much influx of outside Be-bearing fluids. The mineral association chrysoberyl, quartz, staurolite, garnet and kyanite indicates middle amphibolite facies. The conditions of formation of this unique occurrence could well be determined by the intersection of the stability fields of the solid phases and the isochores, determined by a study of fluid inclusions. About 530 to 560 degree Celsius and 4.5 to 7 kb pressure are the most probable conditions of formation.