

THE MAFIC MINERALS OF CERAÍMA SYENITIC MASSIF, SOUTHWEST BAHIA STATE (NORTHEAST BRAZIL).

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The Ceraíma Syenitic Massif (CSM) is a zoned alkaline potassic-ultrapotassic intrusion, placed on the tectonic interface between Santa Isabel Complex and the multiple intrusions of Guanambi Batholith (GB), southwest of Bahia State. Internally the body is formed by three facies: (1) Basal K-syenitic porphyritic Facies (FMS), (2) Intermediate discontinuous layer of a Leucocratic Syenitic Facies (FSL) and, (3) Syenitic-Granitic Facies (FSG), on the top. The mafic mineralogy of the massif is represented by subhedral clinopyroxene, flakes and subhedral crystals of brown dark biotite and anhydric amphibole. Clinopyroxene plots in the diopside field, and exhibits a media composition about Wo(44), En(41) and, Fs (15). Amphibole is originated by a destabilization of diopside in reaction with the melt and sometimes, it surrounds the last one, predominantly in the FSM and FSL. This late amphibole is actinolite. Biotite exhibits the major contents of TiO₂ in the FSM (2.53 a 4.81 %). The FSL biotite rims are most enriched by TiO₂ than the cores (0.85 a 3.4 %). The biotites of FSG are so poor in TiO₂, but exceptionally they can exhibit 4.52%. The biotite borders of mafic enclave show TiO₂ varying from 2.72 to 4.15 % and the cores display TiO₂ values from 3.38 to 4.36 %. This is the contribution n° 066/99 to GPA-UFBA.