

THE GEOLOGICAL STRUCTURE OF THE SYENITIC INTRUSION OF CERAÍMA (SW BAHIA - NE BRAZIL).

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The Ceraíma Syenitic Massif (CSM) belongs to the alkaline rocks domain of the southwest region of Bahia State, occurring in the terrains of the Urandi-Guanambi mobile belt. The CSM is inserted along the contact between the paleoproterozoic multiple intrusions of Guanambi Batholith and the archaean migmatites and granulites, being exposed in a high relief, mountainous area of about 120 km². The CSM is an excellent example of fractionated crystallization, that typifies a vertical zonation composed, at its lowermost part, by porphyritic mafic K-syenitic facies, which is sharp overlain by a discontinuous layer of a Leucocratic Syenitic Facies. Upwards, this facies gradually passes to phaneritic syenites and the uppermost part, alkaline granites are observed. The CSM is constituted by alkaline potassic-ultrapotassic rocks, that exhibit high K₂O/Na₂O ratio (1,8 to 17,3) and Na₂O+K₂O 5%. TiO₂, FeO_t, MgO, CaO, P₂O₅ and F decrease with silica increase. The rocks also show high absolute values of Ba, Sr, Rb, Pb and LREE, moderate values of Zr, Cr, Ni, V, and low Y and Nb, and they are strongly fractionated in LREE [39(Ce/Yb)N146]. Geochemical signatures of the CSM rocks correlate with the potassic-ultrapotassic series. The pronounced LREE enrichment and the depletions in Nb and Y indicate involvement with a subduction zone. The correspondence of values obtained by Rb-Sr and Pb-Pb geochronological methods (2,05 Ga) suggest that the age data correspond to the time of crystallization of the rocks of CSM. The εNd values obtained varying from -9.46 to -10.48. This is the contribution n° 060/99 to GPA-UFBA.