

Transamazonian Gabbronoritic Intrusive Rocks from the Southernmost São Francisco Craton (Brazil).

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The São Sebastião da Vitória (SSV) gabbro is a 50 sq. km cumulate-textured, weakly layered pluton, located southwest of the São João del Rei town (Minas Gerais State). Available outcrops and petrographic data show a wall-rock succession consisting of andesitic to basaltic greenstones and syn-subvulcanic microdiorites, dominated by upper to middle greenschist facies mineral assemblages. Away from the intrusion, the succession exhibits a subparallel steeply-dipping sheared contact with a NE-SW trending and moderately inclined komatiitic phyllites and/or schists, and, metapelites, assigned to the Archean Barbacena Greenstone Belt. Elsewhere, these low grade metakomatiites may show low amphibolite facies mineral relics. The SSV gabbro consists of fine to medium grained mesocumulate rocks, with gabbronorites predominating over leuco-gabbronorites and leuco-gabbros. Andesine, augite and hypersthene are the cumulus phases, followed by post-cumulus phases mainly of igneous hornblende, magnetite and apatite. Metamorphic mineralogy is essentially of actinolite, epidote, albite and actinolitic hornblende. U/Pb zircon data were obtained on the SSV gabbro (2.22 Ga) and on a granitoid pluton (2.19 Ga) neighboring the Tiradentes town. This and a recent Pb/Pb zircon study on several spatially related dioritic and granitoid plutons (Ávila, C.A. et al., in this congress), attest the vestiges of a Transamazonian mafic to felsic magmatism in the study area, with ages ranging from 2.22 to 2.12 Ga.