

CONTRASTED GRANITOID OCCURRENCES WITH RAPAKIVI AFFINITIES
IN BASEMENT AREAS OF THE STATES OF SÃO PAULO AND MINAS GE
RAIS, SOUTHEASTERN BRAZIL.

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Two main groups of granitoids with rapakivi affinities are recognized in southeastern Brazil: the wiborgitic syenogranites that appear in the late- to post-Brasiliano Itu belt in São Paulo (ca. 620-580 Ma) and the pre-Brasiliano gneissic mangerite-granite São José do Rio Pardo suite in southern Minas Gerais and northern São Paulo.

The Itu granitoid belt, formed after the major Brasiliano deformation, cuts across the boundaries between geologic domains. Contrasted granitoids occur in the belt. An association dominated by "A-type", coarse-grained to porphyroid, partly wiborgitic biotite (\pm hastingsite) syenogranites is distinctive; accessory minerals are zircon, allanite, titanite and fluorite. It includes more differentiated equigranular facies, sometimes with muscovite and topaz; locally, post-magmatic alteration produced some cassiterite and wolframite ore in quartz veins and greisens. The above association shows close spatial relationship with coeval(?) high-K calc-alkaline granitoids akin to Caledonian I-types, with predominant biotite (\pm hornblende) monzogranites. Field evidence indicates that the emplacement of both was controlled by a set of strike-slip faults and associated structures. Also similar are presently available $^{87}\text{Sr}/^{86}\text{Sr}$ initial ratios (ca. 0.706-0.707). Several features thus suggest a common genetic mechanism for both suites.

The São José do Rio Pardo suite occurs in an allochthonous high-grade metamorphic terrane as large folded tabular bodies (thicknesses up to 500 m) interleaved with migmatitic ortho- and paragneisses. Rock compositions vary continuously from mangerite to granite; more evolved holo-leucocratic granites are locally present. Chemical affinity with the classical rapakivi association is indicated by major element (high K, Fe/Mg ratios; low Ca) and trace element (high Zr, Nb, REE, etc.) chemistry. Primary magmatic textures and mineralogy were strongly modified by metamorphism. K feldspar occurs as large mesoperthites and accompanying homogeneous oligoclase in granoblastic ground mass; ferrosilite and hedenbergite appear in mangerites, and Fe-rich hastingsitic hornblende in granites. Accessory minerals are magnetite, zircon, apatite and allanite. Rb-Sr ages (ca. 650 Ma) are the result of the strong Brasiliano overprint. This suite is interpreted as the metamorphosed remnant of an old (ca. 1000 Ma?) anorogenic magmatism.