

Proterozoic acid plutonism in the Tapajós Province, Amazonian Craton, Brazil: petrochemistry and ages

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The Tapajós Province, located in the Amazonian Craton, is dominated by a great diversity of Proterozoic granitoids. The following granitic suites are recognised: (i) The oldest one, is part of the the *Cuiú-Cuiú Complex* (2.1Ga) and represents a medium-K calc-alkaline granitoids. It consists of tonalitic to granodioritic orthogneisses and metagranitoids associated to minor amphibolite and migmatite; (ii) The *Parauari Intrusive Suite* (1.88 Ga) is formed by granodiorite, monzogranite and titanite monzogranite. They are sin- to post-tectonics, subalkaline, K-high to medium K calc-alkaline granitoids; (iii) The *Caroçal Granite* (1.87Ga) classified as monzogranite and syenogranite, represents the post-collisional to anorogenic, subalkaline, high-K calc-alkaline granitoids, with affinities and inherited ages 2.60 to 2.70Ga; (iv) The *Maloquinha Intrusive Suite* with a isochron ages of 1.88Ga, comprises biotite and/or amphibole monzogranite to orthoclase. They are A-type granitoids; (v) The *Pepita Granite* (riebeckite-arfvedsonite-orthoclase granite) and *Igarape Escondido Granite* (monzogranite and syenogranite rapakivi), both subalkaline to alkaline granite A-type, not yet dated, is correlated to the Parguazan Episode (~1.55Ga).

The geological framework of the province, suggests similarities with other worldwide Paleoproterozoic terranes, where the continental nucleus processes (age model Sm/Nd 2.4 to 2.8Ga) have underwent progressive crustal shortening and accretion, generating large volumes of calc-alkaline magma, with signatures of volcanic arc and mantelic source.