

syms = 0 + 8 0 7 0 J

GRANITOGENESIS IN NORTHERN BRASILIAN REGION: A REVIEW

Roberto Dall'Agnol – UFPA/CNPq

Jorge Silva Bittencourt – Mineração Oriente Novo/USP

Xafi da Silva Jorge João – CPRM

Hamilton de Medeiros – UFPA

Hilton Túlio Costi – CPRM

Moacir José Buenano Macambira – UFPA/CNPq

The Brazilian Northern region mostly corresponds to the Amazonian region of Brazil. The granitogenesis of this region covers the span of time from the Archaean to the beginning of the Late Proterozoic. Five groups of granitoids have been recognized: 1. Archaean (>2.5 Ga) granitoids; 2. Transamazonian (2.0 ± 0.1 Ga) granitoids; 3. Middle Proterozoic (1.8 to 1.4 Ga) anorogenic granites of the Central Amazonian Province; 4. Middle Proterozoic (1.7 to 1.4 or 1.2 Ga) granitogenesis of the Rio Negro Province; and 5. Middle to Late Proterozoic (1.4 to 0.9 Ga) anorogenic granites of the Juruena and Rondônia Provinces. The Archaean granitoids are better preserved in the Eastern Amazonian region. The older ones are sodic granitoids with dominant tonalitic composition, following the calc-alkaline trondhjemitic trend. Archaean granodiorites are widespread in the Rio Maria region. They follow the calc-alkaline granodioritic trend. Potassic granites are associated with the sodic granitoids in the Amapá and Altamira regions. The Transamazonian granitoids are very abundant in the northern part of the Guyana Shield. The Água Branca and similar granitoids (1.95 Ga) are the best example of Transamazonian granitoids in northern Brazil. They appear to be related to a high-alumina calc-alkaline magmatism and could represent a magmatic reflex in the Archaean Craton of the activity of the Transamazonian Orogenic Cycle. The Middle Proterozoic anorogenic granites of the Central Amazonian Province form one of the largest anorogenic provinces of the world. Two-types of granites have been distinguished: a. alkaline granites similar to the A-type granites, probably generated by crustal anatexis of granulitic rocks; and b. magnetite-series granites, possibly derived by anatexis of meta-igneous rocks of granite-greenstone terranes. The anorogenic granites of the Juruena and Rondônia Provinces are similar, but younger than those found in the Central Amazonian Province. Three subgroups of granites were distinguished according to their ages. In the Rio Negro Province two peculiar granitoids occur: a. the sphene-amphibole bearing biotite granitoids that follow the subalkaline monzonitic trend and which genesis probably involved mantle derived magmas, associated with crustal ones; and b. the crustal two-mica granites derived by anatexis of metasedimentary rocks. In order to compare the characteristics of the five granitoid groups some petrological diagrams are presented and discussed. A brief comparison between the northern Brazilian region granitogenesis and those described in neighbouring regions is done.

de Pen
 . de Ro
 osíticas
 A análi
 interpre
 a do Re
 com cer
 n esta
 raro na
 etamórfi
 se encaí

Congresso Brasileiro de Geologia, 35, 1988, Belém. Resumos.