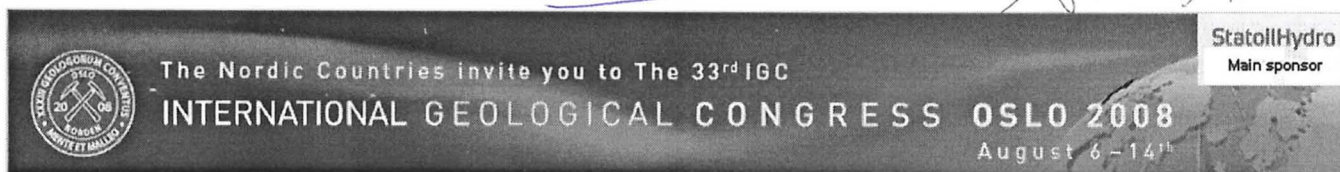


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The late Early Cretaceous Banhadão complex (24° 39' S, 49°23' W) intrudes by multiple events the Neoproterozoic Trs Córregos granite batholith (Ponta Grossa Arch). The better fitting of radiometric ages (K/Ar) is  $106 \pm 5$  Ma, belonging to a chronogroup younger than the other analogues from Ponta Grossa Arch, e.g. Jacupiranga and Juquiá (130 Ma). The magmatic rocks, potassic alkaline suites, are: ijolite-melteigites, malignites, mela-nepheline syenite, prevailing nephelite syenites, and dykes represented by melanite foidites and phonolites. Ijolites are characterized by nepheline, augite and melanite (up to 9% by volume); melteigites consist of large crystals of nepheline, augite, phlogopite and accessory noseana-sodalite group associated with kalsilite, apatite, opaques and calcite; nepheline-syenites contain alkali feldspar, aegirine-augite, scarce phlogopite and accessory titanite, apatite, opaques and occasional wollastonite; melanite foidites and phonolites mainly consist of phenocrysts of melanite (only melanite foidites), alkali feldspars, aegirine augite and nepheline set in a groundmass made of the same minerals besides occasional noseana-sodalite, fluorite, carbonates and secondary cancrinite.

The petrochemistry highlights that the suite is substantially miaskitic, although the more evolved rock types, i.e. noseana-sodalite-rich, have an agpaitic index up to 1.24.

On the whole, this magmatism appears related to the lithospheric mantle, where the contribution of asthenospheric components, derived by the hypothetical Tristan da Cunha or Trindade plumes, are not appreciable in terms of geochemical and isotopical features.

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