

sygona = 2287069

## Granite fabrics and regional-scale strain partitioning in the Seridó belt (Borborema province, NE Brazil)

Carlos J. Archanjó<sup>1</sup>, Ricardo I. F. Trindade<sup>2</sup>

<sup>1</sup> Instituto de Geociências, Universidade de São Paulo, São Paulo, Brazil

<sup>2</sup> UMR CNRS #5563, Equipe de Pétrophysique, Université Paul-Sabatier, Toulouse, France

Fabrics of the Brasiliano-age granitoid plutons of the Seridó belt (Northeastern Brazil) were organized following the partitioned regional strain field which shaped larger areas of the basement and its metapelitic cover. Nine plutons located at the central and western portions of the belt have been investigated by means of anisotropy of magnetic susceptibility (AMS). These plutons, emplaced between 580 and 575 Ma, are mainly potassic calc-alkalic magnetite-bearing monzogranites. The presence of primary coarse-grained magnetite as the main magnetic mineral is indicated by optical and electronic microscopy, magnetic susceptibilities, hysteresis ratios and thermomagnetic curves. The plutons show a strong internal coherence of magnetic fabric, with foliation poles distributed around a zone axis parallel to the gently plunging mean lineation. The magnetic fabric was used to trace the strain partitioning along the belt. In the central transpressive shear belt the magnetic lineations are parallel to N-trending regional stretching. On the other hand, in the western basement block a voluminous granitic magmatism was emplaced as a consequence of a transtensional/extensional deformation. Lineations in these granites trend in a NE direction, which is parallel to the transport, inferred from kinematic indicators along the shear zones. A crustal-scale E-trending dextral shear zone connects both the transtensional and transpressional domains.