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# CONTRASTING STRUCTURES AND DEFORMATIONAL HISTORY OF SYNTECTONIC GRANITES OF CAMPINA GRANDE AND SERRA REDONDA, BORBOREMA PROVINCE, NE BRAZIL

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The Campina Grande and Serra Redonda Granites are intrusive along the contact of the Paleoproterozoic basement (Alto Moxotó Domain) with the Tonian gneisses (Alto Pajeú Domain) of the Borborema Province (northeast Brazil). The Campina Grande Granite (U-Pb age =  $581 \pm 2$  Ma) shows a concentric oval-shaped structure whereas the Serra Redonda Granite (U-Pb age =  $576 \pm 3$  Ma) has a tabular shape, elongated in the NE-SW direction. The plutons are separated by the left-lateral Galante transcurrent shear zone. In this study, the anisotropy of magnetic susceptibility (AMS) was applied to 64 outcrops of granites to determine the internal structures of these plutons and to explore the relationship between magmatism and deformation in an orogenic setting. The magnetic fabrics are concordant with the metamorphic structure of the host rocks. Strike-slip shear zones controlled the emplacement of the Serra Redonda Granite, as indicated by sigmoidal foliation, defining shear bands associated with the Galante shear zone. In contrast, the magmatic/magnetic fabric of the Campina Grande granite seems to have been produced by body (ascensional) forces. The pluton displays an inward dipping, concentric planar fabric parallel to the wall rock contact and lineations highly oblique to the foliation trend. The fabric of the Campina Grande pluton is consistent with a magma moving over a ramp dipping to southwest, with the lineation at high angle to the NE-trending flow direction. The contrasting structures of the plutons reflect the episodic nature of orogenic deformation, which was punctuated by the alternation of weak and strong strains, affecting the fabric development of the syntectonic intrusions.