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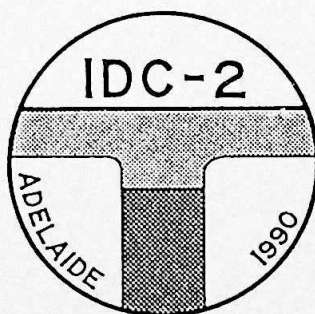
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ABSTRACTS

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MAFIC DYKES AND EMPLACEMENT MECHANISMS



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THE PONTA GROSSA DYKE SWARM AND ITS RELATIONSHIP WITH THE PARANA BASIN FLOOD MAGMATISM (SOUTHERN BRAZIL), BASED ON PALAEOMAGNETIC DATA

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The Ponta Grossa dyke swarm corresponds to hundreds of tholeiitic dykes of Lower Cretaceous age, trending NW-SE from the Southeastern coast of Brazil towards the interior of the Paraná Basin, where they reach the northern part of the basin. The dykes, however, rarely cut the Paraná flood volcanics.

The available paleomagnetic data show that the dykes are younger than the Paraná flood volcanics but can be contemporaneous both with the later phase of the volcanism in the Paraná central region and the magmatic activity in the northeastern region where numerous sill-type intrusions are also present.

The Ponta Grossa dykes are concentrated in the northern part of the Ponta Grossa Arch, a tectonic swell that exposes Paleozoic and Precambrian rocks which are all cut by the dykes. The similarities of the remanent magnetization directions indicate that these dykes cooled down at the same rate.

Both normal and reversed polarities are recorded, the former being more frequent. Mean magnetization directions for dykes from different regions of the Arch seem to correlate better inside the stripes delimited by the NW-SE tectonic and/or magnetic lineaments that characterize the Ponta Grossa Arch.