

Interactive comment on “Low titanium magmatism in northwest region of Paraná continental flood basalts (Brazil): volcanological aspects” by F. B. Machado et al.

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To Editor Dr Piergiorgio Scarlato

Thank you for your attention. We are sending the reply to the reviewers. Following their helpful suggestions the paper will be modified. Below are the new version main objectives:

1 – To describe in detail the morphology of different lava outpourings of the continental basalts of Paraná Basin, as well as the interaction between the first flows and sandy sediments (Botucatu Formation), particularly at its northwestern border. This area has never been investigated in previous studies. Although similar structures were only
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found in the Huab Formation (located in the African counterpart), there are strong evidences that the paleoenvironment was less humid in the studied area.

2 - To correlate the different geochemical signatures of major and trace elements (including REEs) with the different morphologies identified in the lavas. The geochemical data will be compared with those of the literature, in order to verify if the magma-type discrimination proposed by Peate et al (1992) requires some modification. This is essential because in the nineties only few basalts of the investigated area were available.

3 – To define the lava chemostratigraphy in order to get a better understanding about how the magmatic evolution occurred in the area and its relationship with the Paraná Basin entire volcanism.

Interactive comment on Solid Earth Discuss., 6, 2215, 2014.