Short-duration of silicic magmatism from the Paraná Magmatic Province, constrained by high-precision U-Pb zircon geochronology

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The Paraná-Etendeka Magmatic Province (PEMP) is one of the world's largest LIPs, with up to 1,000,000 km^3 of preserved volcanic rocks of dominantly basaltic composition and is related to the Gondwana breakup during the Lower Cretaceous. Silicic volcanics (low-Ti Palmas and high-Ti Chapecó types) are relatively abundant compared to other continental flood basalt provinces (e.g. Deccan Traps, CAMP), with preserved volumes of *ca*. 15,000 km^3 in Brazil.

Here we present high-precision U-Pb zircon ages of silicic volcanics, to reconstruct the timescales of magmatic pulses and evaluate a temporal link between the Paraná Magmatic Province (PMP) magmatism and global-scale environmental changes. We will present data from the entire low-Ti Palmas sequence: Jacuí, Caxias do Sul and Anita Garibaldi dacites, Clevelândia and Santa Maria rhyolites. Our new, preliminary ages point to a short-time interval (*ca*. 400.000 ky) for the Palmas-type silicic magmatism. These eruptions occurred immediately before the Valanginian $\delta^{13}C$ excursion and associated oceanic anoxic event, overlapping with a mercury anomaly in the marine record, thus suggesting a correlation between these events. (Charbonnier et al. 2017).

Charbonnier et al. 2017, Sci Rep. 10.1038/srep40808.