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Elemental chemostratigraphy in the Ediacaran-Cambrian Nama Group, Namibia: preliminary results.

Thales Pescarini¹, Henrique Fernandes², Luiz Gustavo Pereira³, Carolina Bedoya Rueda³, Marly Babinski³, Juliana Leme³, Paulo Cesar Boggiani³, and Ricardo Trindade⁴

¹Institute of Astronomy, Geophysics and Atmospheric Sciences, University of São Paulo, São Paulo, Brazil

(thales.pescarini@usp.br)

²Institute of Geosciences, University of São Paulo, São Paulo, Brazil (henrique.albuquerque.fernandes@usp.br)

³Institute of Geosciences, University of São Paulo, São Paulo, Brazil

⁴Institute of Astronomy, Geophysics and Atmospheric Sciences, University of São Paulo, São Paulo, Brazil

The Neoproterozoic-Paleozoic transition was marked by profound modifications in the Earth-Life system, as evidenced by intense perturbations in biogeochemical cycles and the appearance of complex macroscopic life. Many questions remain regarding the relationship and feedback between the biotic and abiotic processes that operated in that period, particularly the interconnections between changes in paleoclimate, tectonics, and the biological evolution. Here we present new geochemical data for the Nama Group, South Namibia, sampled as part of the ICDP GRIND (Geological Research through Integrated Neoproterozoic Drilling) project, a global scientific collaboration that aims to study, in an integrated and multidisciplinary way, different sedimentary sequences in Namibia, China and Brazil, which encompass the terminal Ediacaran and the base of the Cambrian. Our sampling was carried out in the entire stratigraphic interval of the Nama Group in a 5 m resolution, always respecting the variations in facies and fossiliferous content and avoiding highly disturbed strata. X-ray fluorescence analyses were conducted 745 samples through a portable XRF device. The preliminary results of major elements, such as Si, Al, Ti, Sr and Ca, show major environmental shifts in the stratigraphic column, usually reflecting facies variations. The preliminary data presented herein is of key importance for the subsequent studies in the drill cores of the GRIND project, comprising geochronology, isotope analyses and paleontology.