

## **MAGNETOSTRATIGRAPHY AND ROCK MAGNETIC PROPERTIES OF UPPER CRETACEOUS AND K/T-BOUNDARY CARBONATES FROM NORTHEASTERN BRAZIL**

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A first high resolution magnetostratigraphic and rock magnetic analysis of carbonates exposed in the Pernambuco and Paraíba sedimentary basins of northeastern Brazil is presented. Together with biostratigraphic data and a cyclostratigraphic approach we attempt to establish a first high resolution polarity timescale for the Upper Cretaceous and the Cretaceous-Tertiary boundary for that region. Preliminary experiments indicated that alternating field demagnetizations are the appropriate method to decipher the natural remanent magnetization. Rock magnetic data sets, including measurements of magnetic susceptibility ( $k$ ) and laboratory imparted anhysteretic (ARM) and isothermal remanent magnetization (IRM), are used to describe the magnetic mineralogy and its variation with depth. Evolutionary spectral analysis (ESA) of these rock magnetic parameters provide the basis for the investigation of the frequency content of the sampled carbonate - marl successions. Subsequent correlations with the astronomical frequencies show that sedimentation was - at least in parts - influenced by the cyclic variation of the earth's orbital parameters. This is a contribution to IGCP Project 381: South Atlantic Mesozoic Correlations.