

STRONG EVIDENCE FOR GROUPING OF TRANSITIONAL POINTS IN THE CRETACEOUS VGP TRAJECTORIES REVEALED BY WAVE COHERENCE

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A set of VGP sequences obtained from lava flows from southern Brazil can be modeled by sinusoidal functions of wavelengths nearly 167° , 190° , 209° , 277° and 368° . These wavelengths are obtained when latitude is represented as a function of longitude. Lateral correlation of the magnetostratigraphic sequences is not evident due to the paucity of transitional data although most of them exhibit various polarity intervals, as expected for the Early Cretaceous geomagnetic record. However, phase analysis on the above wavelengths shows high coherence for most of the sequences, pointing to a clustering of trajectories near zero latitudes.

magnetostratigraphy, spectral analysis, VGP trajectory

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