THE USE OF $^{87}Sr/^{86}Sr$ RATIO IN CHRONOSTRATIGRAPHIC AND PALEOENVIRONMEMTAL INTERPRETATIONS - UPPER CRETACEOUS OF POTIGUAR BASIN, BRAZIL.

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The aim of use $^{87}Sr/^{86}Sr$ ratio is to obtein isotopic data to do chronoestratigraphic and paleoenvironmental inferences about Jandaíra Formation, Potiguar Basin, Brazil. This kind of inference has been based principaly on paleontological and bioestratigrafical data .

The sedimentic carbonatic rocks have preserved a record of the changing isotopic composition of Sr in the oceans trougth Proterozoic and Phanerozoic.

The $^{87}Sr/^{86}Sr$ ratio of modern oceans appears to be constant through the world's oceans and the time of oceanic residence of Sr is larger than that of isotopic homogeneization (Elderfield, 1986, **Palaeogeography, Palaeoclimatology, Palaeoecology**,**57**:71-90).

The changing $^{87}Sr/^{86}Sr$ ratio in the oceans is due to diferent rocks exposed to quimical intemperism and is controled by three isotopic varieties of Sr derived from volcanic rocks, sialic rocks of continental crust and marine carbonatic rocks from Phanerozoic.

The rocks exposed and intensity of intemperism, have changed through the geologic time. A curve of variation of $^{87}Sr/^{86}Sr$ in marine carbonates through the Phanerozoic, based in data from off shore, is presented (Burke **et al,** 1982, **Geology**, **10**:516-519).

The presence of terrigenous from more restricts environments augments this ratio, due to maior influence of continental crust.

The isotopic data, in this work, are in agreement with biostratigraphic one, that proposes an Campanian age to upper strata of Jandaíra Formation.

The isotopic and micropaleontological data (planktonic/bentonic ratio) allows too, recognition of a marine proximal environment and a carbonatic ramp with relative restrict circulation and terrigenous influence.