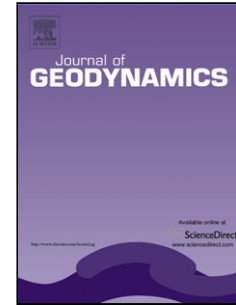


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## **Carboniferous carbonate rocks of the Chukotka fold belt: Tectonostratigraphy, depositional environments and paleogeography**

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### **Abstract**

New faunal data from Carboniferous carbonates on Wrangel Island and Chukotka Peninsula (within Kuul, Alyarmaut and Polyarnyui Uplifts) are used to identify stratigraphic sequences and for regional correlations. The facies and geochemical data indicate that Carboniferous sediments on Wrangel Island, Kibera Cape and the Alyarmaut Uplift were deposited on a carbonate platform that was part of the passive continental margin of Arctida (the Hyperborean platform). Limestone of the Polyarnyui Uplift was formed on an isolated seamount in the oceanic basin. The geochemical and isotopic characteristics of rocks on Wrangel Island and in the Kuul and in the Alyarmaut Uplifts show the alternation of limestone formed in marine environments and limestone with the characteristics of a freshwater basin. Limestones of the Polyarnyui Uplift formed in a seamount of oceanic marine environment. A new paleogeographic model is proposed based on faunal, isotopic and geochemical characteristics of limestone. In the Early Carboniferous, carbonate platform were located in Chukotka and in the Wrangel Island. In the Late Carboniferous, the area of carbonate sedimentation was reduced and deposits accumulated

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