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Urzhumian stage in geochemical variations

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Abstract

Geological site Cheremushka is known as key stratigraphic record of Urzhumian stage of Middle Permian (Biarmian) series. It is situated on the Volga River's right bank, near Kazan city (Russia). In present paper lithology and geochemistry of this section is analyzed by EDXRF and discussed to reveal regional facial and cyclic features of the succession formed in altered sedimentary environments. Bulk geochemistry of sediments can be used to characterize the distribution of allogenic and authigenic components. It can also be used to compare these distributions with the general evolutionary stages of Volga River's region. The sedimentary sequence at site Cheremushka is divided into nine geochemical stages and sedimentary cycles using bulk geochemistry profiles, where silica change is considered as basic. The stage (cycles) boundaries correlate with the significant lithologic boundaries. Paleoenvironmental evolution is interpreted as alteration of lagoon and terrigenous flux influenced environments in arid climate during Sulitzkian time and in humid climate during Isheevskian time. © 2006-2014 Asian Research Publishing Network (ARPN).

Keywords

Bulk geochemistry, Paleoenvironments, Urzhumian stage, X-ray fluorescence