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Studying the Permian cross-section (Volga region) using chemical and isotopic investigations

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This paper presents a study of international important site: the cross-section of Permian system's Urzhumian Stage in the ravine "Pechischy". Outcrop is located on the right bank of the Volga River (about 10 km West of Kazan). It has local, regional and planetary correlation features and also footprints of different geographical scale events.
The main objective in the research is the deep study of sediments using chemical and isotopic investigations. XRF spectrometer was used for chemical investigations of samples. Chemistry of carbonates and clastic rocks includes the analysis of chemical elements, compounds, petrochemical (lithogeochemical) modules for the interpretation of the genesis of lithotypes. For the review of the geochemistry of stable isotopes of carbon (oxygen) we used IRMS. The main objective is the nature of the isotope fractionation issues, to addressing the issues of stratigraphy and paleogeography.
The measurements have shown the variability of chemical parameters in cross-section. It gives us opportunity to see small changes in sedimentation and recognize the factors that influence to the process.
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