

## **Influence of depositional environment on distribution of pigments in sedimentary basins**

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The data on perylene and metalloporphyrin distribution in more than 250 clay samples from the Jurassic of southeastern West Siberia are presented. The deposits are shown by eight alternating stratigraphic horizons the pairs of which make up transgressive-regressive cycles formed due to eustasy.

The extractable organic matter was analyzed for the content of pigments. It was established that vanadyl porphyrins are mainly associated with the sediments accumulated during sea transgression where they are more widely distributed as compared to the sediments of regressive stages. Vanadyl porphyrins in the latter are limited by low redox potential, in the sediments of regressive horizons it is independent of the depositional environment redox potential. At the same time the depth of a sedimentary basin, i.e. the processes connected with eustatic changes of the World ocean level, has no influence on the distribution of nickel complexes. Similarly perylene prevalence in any particular horizon is slightly related to conditions of sedimentation. It increases gradually upward the Jurassic section and is connected with temperature-temporal limits of organic matter transformation. The occurrence and concentration of nickel porphyrins and perylenes are also independent of redox potential in the basin. But perylene concentration in sediments is connected with conditions of sedimentation. The sediments deposited during sea level fall are richer in perylenes as compared to those deposited during transgression.