

## **CHARACTERIZATION OF BULK AND MOLECULAR COMPOSITION OF UPPER JURASSIC OIL SHALES ORGANIC MATTER OF SYSOLA REGION (MEZEN BASIN, RUSSIA)**

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Core samples of oil shales and calcareous clays (Volgian stage, ammonite zone *Dorsoplanites panderi*) from boreholes 351 and 363 of Poinga field were investigated. A content of TOC in studied section ranges from 0.52 to 18.6 %, and yield of extractable OM varies from 1,3 to 61,4 mg/g TOC. In general the atomic H/C ratio in kerogen increases with increasing of TOC content (H/C nearly 1 for clays, and more than 1.3 for shales). Isolated saturated, unsaturated, and low polarity NSO bitumen fractions were GC and GC-MS analyzed. n-Alkanes distribution in all samples has bimodal character. Odd n-alkanes in two different molecular mass range fields (C13-C19 and C23-C35) predominant; pristane to phitane ratio is always lower than 1. Hopanes are dominated by biological forms, indicating low degree of OM maturity (bb amount up to 51%). Steranes hydrocarbons are represented by 5b(H) and 5a(H) forms with relatively abundance of more stable 5a(H) form. Steranes C27 and C29 which have similar concentrations are more abundant than C28. Unsaturated fraction contains abundant monounsaturated steranes of regular structure, their molecular distribution are very similar to saturated ones; 4-methylsteranes structure were not observed in unsaturated fraction, but in saturated they are abundant (C28, C29 aaa20R). We suppose that OM of different lithofacies has similar source. The difference in elemental composition of kerogen can be explained by different preservation conditions. Our determination of low mass range isorenieratene derivatives in less polarity NSO fraction can suggest the influence of anoxia on the OM accumulation in oil shales.