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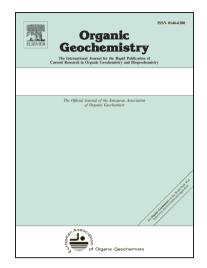
PII: S0146-6380(17)30382-0

DOI: https://doi.org/10.1016/j.orggeochem.2017.10.009

Reference: OG 3630

To appear in: Organic Geochemistry

Received Date: 5 September 2017 Revised Date: 17 October 2017 Accepted Date: 22 October 2017



Please cite this article as: Bechtel, A., Oberauer, K., Kostić, A., Gratzer, R., Milisavljević, V., Aleksić, N., Stojanović, K., Groß, D., Sachsenhofer, R.F., Depositional environment and hydrocarbon source potential of the Lower Miocene oil shale deposit in the Aleksinac Basin (Serbia), *Organic Geochemistry* (2017), doi: https://doi.org/10.1016/j.orggeochem.2017.10.009

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Depositional environment and hydrocarbon source potential of the Lower Miocene oil shale deposit in the Aleksinac Basin (Serbia)

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## **ABSTRACT**

The most prolific oil shale deposit in Serbia is located in the Aleksinac Basin and is assigned to the Lower Miocene. Depositional environments and hydrocarbon potential were assessed for the Aleksinac oil shale and coal layers through bulk geochemical, organic petrographical, biomarker, and carbon isotope data from core samples from a single well. Maturity parameters (vitrinite reflectance,  $T_{max}$ , biomarker isomerisation ratios) prove that the organic matter (OM) is immature. A lower lacustrine oil shale sequence is comprised of alternating sandstone and clay-rich rocks and some thin coal beds, indicating strong variations in depositional environment. This stratum is covered with thick sandstone (50 m) terminated by

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