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Pyrolysis of Kerogen of Bazhenov Shale: Kinetics and Influence of Inherent Pyrite

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Abstract

© 2017 American Chemical Society. In the present study, we investigated in detail the influence of the depyritization procedure on the structure and morphology of the organic matter of Bazhenov shale. We monitored both structural and morphological properties of the organic matter of shale during chemical treatment by a complex of physical methods, including different types of spectroscopies, scanning electron microscopy, and physisorption analysis. We also applied non-istothermal kinetic analysis to study the effect of inherent pyrite on the pyrolysis of kerogen in a wide temperature range and showed that the presence of inherent pyrite has no impact on the pyrolysis process.

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