

Title:

Oil Shale Pyrolysis Reaction Model by Solving Ordinary Differential Equation Approach

Abstract: (Your abstract must use 10pt Arial font and must not be longer than this box)

A mathematical model was developed to represent kerogen and bitumen decomposition reactions occurring during oil shale pyrolysis. To predict the weight loss over temperature for given shale sample, Runge Kutta method is used to solve the ordinary differential equations (ODE). The ODE method applied in this paper is compared with the previous paper using linearization of the ODE and with experimental data obtained on an oil shale sample from the Moroccan Timahdit oil shale at different heating rate.

This paper also introduces the concept of separating the oil, gas, water into individual component by differentiation between the substances composing in the vapor phase. Cracking and cooking reactions of the oil produced from kerogen and bitumen decomposition are also taken into account in this concept.

Important notes:

Do **NOT** enter author and affiliation information on this document. You will be able to enter this information online when you submit the abstract.

Do **NOT** write outside the boxes. Any text or images outside the boxes **will** be deleted.

Do **NOT** alter the structure of this document. Simply enter your title and abstract in the boxes. The document will be automatically processed – if you alter its structure your submission will not be processed correctly.