

Influence of water content, catalysts on combustion processes of heavy oils.

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Abstract

© SGEM2018. This work devoted to study the influence of water content and catalyst presence on in situ combustion processes of crude oil. The crude oils from Russia oil field were studied. Oxidation process at reservoir conditions (50 bar and 30 °C) was studied for crude oil at different water content (0, 20, 30 % by weight) and catalyst presence (Co₃O₄). The combustion study was investigated by accelerating rate calorimetry (ARC). Arrhenius kinetic parameters were determined for crude oils. The correlation between water content, catalyst presence and kinetic parameters was found.

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Keywords

ARC, Catalyst, Kinetics parameters, Water content

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