

5TH WORLD BIOENERGY CONGRESS

April 15-16, 2019 | Tokyo, Japan

The effect of local bacteria on physical characteristics of Abu Dhabi crude oil

Hadil Abu Khalifeh, Omar Chaalal and Sumaita Rahman
Abu Dhabi University, UAE

Crude oil is the raw material for many industries to produce consumer products such as gasoline, paraffin oils, asphalt, domestic fuel oil, and polymers. In contrary, sometimes its presence can cause destruction of the environment. In this work, the characteristics of target Abu Dhabi crude oil are investigated under the influence of microorganisms (bacteria) cultivated in a green tea media. Bacteria influence on crude oil chemical

composition and physical-chemical properties such as oil viscosity and surface tension are studied. Several samples were prepared using deionized water, green tea, cultivated green tea, sodium chloride and crude oil. Emulsions formation was observed for some samples. Promising results obtained can have applications in oil industry.

hadil.abukhalifeh@adu.ac.ae