

Acid-activated bentonites of Kosovo to be used for oil regeneration

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Abstract

Bentonite soils are the most widely used bentonites due to their physicochemical properties, the ability to increase the space between the layers after undergoing the activation process (acid, alkaline, thermal or mix). This paper presents a summary of the results of activation of two Kosovo bentonites mainly in the Goshica area and the Karaqeva area. The two bentonites have been modified by introducing optimal bentonite processing methods including acid activation, in order for them to be used as bleaching agents. They have been compared with each other and with the untreated natural bentonites. It was found out that the activation of bentonites brings about significant changes in their structure and physicochemical properties. The specific surface area and cationic exchange capacity correlate well with the amount of activator. Acid activated Kosovo bentonites show promising results to be used for industrial processing, bleaching agents and UMO recycling at industrial scale.