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Extraction of oil from Egyptian oil shale

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Shale oil seems to be a promising alternative fuel source because of the increasing demand for oil in many organizations and governments. In the present work, the yield of shale oil extracted by mechanical agitation was used in the solvent extraction of Quseir's oil shales. The present study highlights the characterization of Quseir's oil shales using various analytical techniques such as elemental analysis, infrared spectroscopy (IR) and the morphology study of oil shale (SEM). In case of the mechanical agitation, the effect of solvent type on the extraction of oil from Quseir's oil shales was studied. The experimental results revealed that the extraction yield obtained by toluene and the mixture of (n-hexane+methylene chloride) are comparatively high compared to other solvents. The thesis also studied the effect of amount, type of solvent, particle size of oil shale and time of the contact. The study is also focused on the analysis of shale oil samples by gas chromatography (GC) and thermal analysis (TGA) which revealed that the oil has a high content of hydrocarbons.

Biography

Aya Soliman Mohammed Moustafa Mohammed has completed her Master's degree from Chemical Engineering Department Alexandria University. She is a Teaching Assistant at Petrochemical Engineering Department Pharos University. She has published 1 paper in *Journal of Surface Engineered Materials and Advanced Technology*.

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