The effect of fuller's earth and different acid solvents on used engine oil through acid-clay treatment for renewable energy

ABSTRACT

In this study, the fuller's earth (FE) and different acid solvents on used engine oil (UEO) using acid-clay treatment were investigated. The reclamation efficiency of different acids paired with FE was measured through several analyses. All the UEO samples showed positive water content. The treated oils' density was improved to 0.718 g/ml compared to UEO of 0.855 g/ml. The FT-IR did not enhance components due to alkene, aldehyde, and methane with similar wavelengths to untreated EO. Copper (Cu) and lead (Pb) content in treated EO were not detected.