Hassan Jalal Aziz, J Pet Environ Biotechnol 2017, 8:4 (Suppl)
DOI: 10.4172/2157-7463-C1-034

The effect of some physical parameters on the performance of petroleum antioxidants additives

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Three types of petroleum antioxidants additives; 2, 4-diteriarybutyl-1-phenol (Unol), tertiary alkyl primary amine with 9 carbon atoms (TAPA-9) and tertiary alkyl primary amine with 12 carbon atoms (TAPA-12) were selected to examine their anti-oxidation performance for crude diesel fuel. The study included the effect of solubility and boiling point effect of these compounds on their efficiency as antioxidants during the oxidation process under elevated temperature. Chemiluminescence method was selected to detect the oxidation efficiency through the induction periods results. The solubility and the boiling points results was in the order of TAPA-12>TAPA-9>Unol. The resulted induction periods were 600, 440, 212 and 55 seconds for TAPA-12, TAPA-9, Unol and crude diesel respectively.

Biography

Hassan Jalal Aziz is currently working as a Lecturer in University of Salahaddin, College of Basic Education, and General Science Department. He has published many researches in the field of his specialization in international journals.

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