

Influence of the additives of natural sulphur-organic compounds on thermal stability of oil fractions of arlan petroleum

Gainullina L., Tutubalina V., Sabitov L.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© Published under licence by IOP Publishing Ltd. The influence of additives of natural sulfur-organic compounds on the thermal stability of the oil fraction of Arlan petroleum in an electric field is studied. It has been established that the introduction of additives of natural sulfur-organic compounds into the petroleum fraction leads to a decrease in the formed solid sediment and acid number, which indicates an increase in the dielectric characteristics of the oil and an increase in its thermal stability in the electric field. The optimum amount of addition of natural sulfur-organic compounds in an amount of 0.5% reduces the amount of water-soluble acids formed, and, consequently, also the aging of the oil.

<http://dx.doi.org/10.1088/1757-899X/412/1/012016>

References

- [1] Lipshtein R A and Shakhnovich M I 1983 Transformer oil (Moscow: Energoizdat) 41-173
- [2] Vanin B V, Lvov Yu N, Yu Lvov M, Neklepaev B N, Antipov K M, Surba A S and Chichinsky M N 2001 Electric stations
- [3] Kharlampidi Kh E, Gaynullina L R and Tutubalina V P 2016 Vestnik of the Technological University 19
- [4] Vildanov R R and Tutubalina V P 2007 Izvestiya vuzov. Problemy energetiki