



Studies on thermodynamic and Acoustic Parameters of Iron (III) Hexanoate in Benzene-butan-1-ol mixture

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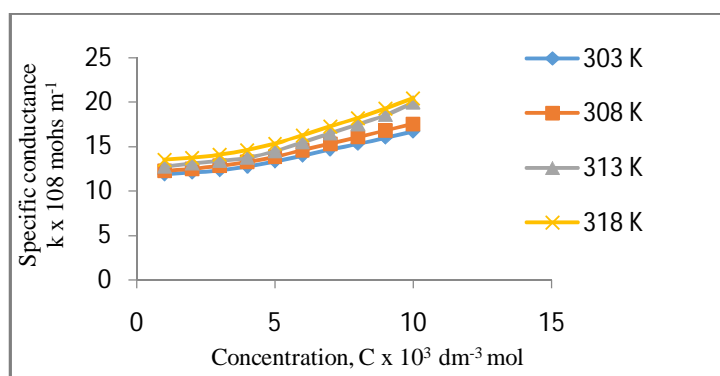
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Accepted on 3rd February, 2019

ABSTRACT

The conductometric measurements of the solutions of the iron (III) hexanoate in benzene-butan-1-ol mixture (1:1 v/v) were carried out at different temperature (303K, 308K, 313K and 318K) and ultrasonic velocity measurements of the solutions of the iron (III) hexanoate in benzene-butan-1-ol mixture (1:1 v/v) were carried out at constant temperatures, 308K. The thermodynamic of dissociation and association can be satisfactorily explained in the light of phase separation model by the conductivity measurements and the results shows that the association process is dominant over dissociation process. The ultrasonic measurements were used to evaluate various acoustic parameters. The results showed that the soap-soap interactions are weaker than soap-solvent interactions in dilute solutions and soap molecules do not aggregate below the critical micelle concentration in dilute solutions.

Graphical Abstract



Specific conductance, (k) Vs Concentration, (C) Solvent: Benzene-Butan-1-ol (1:1 v/v) mixture.

Keywords: Iron (III) hexanoate, Conductivity, Acoustic parameters C.M.C.