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Conductometric And Thermodynamic Investigation of Zirconyl Soaps of Lower Saturated Fatty Acids In Mixed Solvents

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ABSTRACT

The critical micelle concentration (CMC) of zirconyl soaps in mixture of xylene-methanol were determined by using conductometric studies. The result show that zirconyl soaps behave as simple electrolyte in dilute solutions and critical micelle concentration was found to decrease with increasing chain length of the soap and increase with increasing temperature. Various thermodynamic parameters for dissociation and micellization process were evaluated and it is found that the dissociation of zirconyl soaps is exothermic while the association process is endothermic in nature.

Keywords: Zirconyl soaps, Specific conductance, Micellization, Heat of dissociation, Heat of association.