**ABSTRACT**

Asphaltene aggregation and flocculation is one of the main problems faced by upstream industry. The aim of this research activity is to explore the effect of synthesized imidazolium and pyridinium based ionic liquids on the prevention of asphaltene aggregation problem in crude oil. In this research, number of hydrophobic and hydrophilic ionic liquids were tested. The investigations were performed for evaluating; the dispersion yield, effect of temperature, effect of stirring time and effect of solvent to flocculant ratio. Analysis were done using UV-visible Spectroscopy. The results depicted that the investigated hydrophobic ionic liquids have the tendency to abate asphaltene aggregation and can be considered as deflocculants.