

# **IONIC LIQUIDS CLASSIFICATION FOR FUEL DESULPHURIZATION**

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## **ABSTRACT**

An analysis was applied to 35 types of ionic liquids (ILs) where three basic physical properties have been considered in predicting their relationships with fuel desulphurization performance. By mapping the original data of density versus molecular weight, it provided a quick indication of some form of relationship between these two variables based on the chemical structure of the anion in the classified ionic liquids, especially in sulphate, phosphate and cyano-based ILs. The mapping provided a quick and simple approach in estimating the potential of the ionic liquids' performance for fuel desulphurization. Conceivably influenced from these three basic physical properties, a modest and fairly good correlation was derived through statistical approach.

**KEYWORDS:** Ionic Liquids, Desulphurization, Density, Molecular Weight, Data Mapping