Recovery of Volatile Acids from Aqueous Solution by Tri-n-Butyl Phosphate dissolved in laboratory Made Nontoxic Diluent

A K Rathore¹, shourabh singh raghuwanshi², Sunderlal Pal³*

¹,²Research Scholar, Department of Chemical Engineering, MANIT Bhopal, India
³Assistant Professor, Department of Chemical Engineering, MANIT Bhopal, India

Abstract: The present work was carried out to study the extraction of volatile acids like acetic and propionic with tri-n-butyl phosphate (as extractant) dissolved in laboratory-modified nontoxic diluent. A graphical method was used to calculate the values of Dimerization coefficient (D) and partition coefficient (P) from distribution coefficient (K_D) data of both volatile acids. The extraction equilibrium constants(K_E(1:1)) and loading factors (Z) for both volatile acids were also determined. Based on the values of Z it can be concluded that there is a formation of 1:1 complexes between Tri Butyl Phosphate and Volatile acids.

Keywords: Tri Butyl Phosphate(TBP), Volatile acids, Laboratory modified diluent, Toxicity.


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