Recovery of Diluted Ionic Liquid in Water Using Chromatographic Method

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Now a day, ionic liquids had become a remarkable solvent system instead of traditional solvents – water and organic solvent – in the chemical and biological engineering area. Ionic liquids has many useful chemical and physical properties, however its cost act as drawback for the applying. This study has focused on the recovery of ionic liquid using chromatographic method. [Bmim][BF4] aqueous solution was used as model system as diluted ionic liquid and Optipore SD-2 resin was used as stationary phase for the adsorption of [Bmim][BF4]. The focusing of adsorbed [Bmim][BF4] on the Optipore SD-2 resin has performed by elution of methanol into the column. Methanol was loaded into the column with varied loading volume. Results of focusing were confirmed by the HPLC analysis.