RESEARCH NOTES

稀释剂对三烷基氧膦萃取草酸的影响

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摘要

In liquid-liquid solvent extraction processes, diluents have a strong influence on the extraction mechanism and efficiency. In this study, benzene, cyclohexane, trichloromethane, carbon tetrachloride, methyl isobutyl ketone (MIBK), butyl acetate, and 1-octanol were used as diluents in the extraction of oxalic acid by trialkylphosphine oxide (TRPO). The effects of extractant concentration, initial concentration of oxalic acid and diluent type on the extraction equilibrium partition coefficient are analyzed. The sequence of the extraction ability by different diluents is MIBK > butyl acetate > cyclohexane-benzene > carbon tetrachloride > 1-octanol > trichloromethane. Extraction mechanism was analyzed and extraction model parameters were evaluated.

关键词

extraction reversible chemical complexation trialkylphosphine oxide oxalic acid diluent

分类号

Effect of Diluents on the Extraction of Oxalic Acid by Trialkylphosphine Oxide

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Abstract

In liquid-liquid solvent extraction processes, diluents have a strong influence on the extraction mechanism and efficiency. In this study, benzene, cyclohexane, trichloromethane, carbon tetrachloride, methyl isobutyl ketone (MIBK), butyl acetate, and 1-octanol were used as diluents in the extraction of oxalic acid by trialkylphosphine oxide (TRPO). The effects of extractant concentration, initial concentration of oxalic acid and diluent type on the extraction equilibrium partition coefficient are analyzed. The sequence of the extraction ability by different diluents is MIBK > butyl acetate > cyclohexane=benzene > carbon tetrachloride > 1-octanol > trichloromethane.Extraction mechanism was analyzed and extraction model parameters were evaluated.

Key words

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