

## عنوان مقاله:

Extraction of Chromium Ion (VI) Using Bulk Liquid Membrane

## محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 12

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## خلاصه مقاله:

Liquid membranes with impressive properties such as high selectivity and efficient consumption of energy in separation processes seem to be more suitable. Other advantages such as variety of configuration and carriers for different applications, simplicity of assembling and high rate of mass transfer are facilitated the implementation of these membranes. Chromium is one of contaminants that exist in waste water of various industries like steel, pigment and leather tanning. In this project separation of Cr (VI) ion by implementation of a bulk liquid membrane using alamine as carrier, kerosene as solvent, sodium hydroxide as stripping product phase, dodecanol for preventing from jellying of inorganic and organic phases have been investigated. Effective parameters on separation of Cr(VI) ion including feed phase pH, stripping phase molarity, mixer rotational rate in feed and stripping phase, volume percentage of carrier in organic phase, presence/absence of surfactant in organic phase have been studied. In the range of designed experimental, the optimum conditions as follow have been found: pH=2, Stripping phase molarity=3, mixer rotational rate in both inorganic phases = 100 rpm, volumetric amount of carrier = 1%, and presence .of surfactant

## کلمات کلیدی:

(Extraction, Liquid Membrane, Chromium, Alamine (336

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