

عنوان مقاله:

To investigate properties and application potential of hydrous cerium (IV) oxide as inorganic ion exchanger

محل انتشار:

یازدهمین کنگره ملی مهندسی شیمی ایران (سال: 1385)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

Hydrated cerium (IV) dioxide has been synthesized, by adding excess 0.1M cerium sulphate to 4M ammonia solution at 25 °C and pH = 12.5 with constant stirring. A yellow precipitate was obtained and its properties were investigated by Infrared, X-ray diffraction and thermal gravimetric techniques. The selectivity of hydrated cerium oxide for 153Sm and 131I ions and also pH effects on the amount of adsorption were studied. The result shows a high adsorption selectivity of cerium oxide for the ions being investigated, thereby increasing potential applications of these exchangers.

کلمات کلیدی:

Inorganic ion exchanger, hydrous oxides, adsorption, distribution coefficient

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