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二正辛基亚砜与TBP协萃铀的研究

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摘要 <正> 亚砜萃取铀、钚、钍、镎及裂片元素已进行过研究。本文研究亚砜和TBP对铀的协同萃取。关于亚砜的协萃效应许多人已进行过研究,结果表明,亚砜不仅与不同类型的萃取剂具有协同作用,而且两种不同亚砜混合时也存在协同效应。Svbramanian

关键词 铀 DOSO TBP 协萃

分类号

SYNERGETIC EXTRACTION OF URANYL NITRATE BY TRIBUTYL PHOSPHATE(TBP) AND Di-n-OCTYL SUFOXIDE(DOSO)

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Abstract In this paper the synergetic extraction of uranyl nitrate from nitric acid mediawith TBP-DOSO-CCl_4 is studied. The formation of a synergic extracted complexUO_2(NO_3)_2·TBP·DOSO is confirmed by the usual slope method. It is found thatmaximum synergetic extraction effect occurs when the molar ratio of TBP toDOSO is 1:2. The effects of the total extractant concentration, the concentration of nitricacid, and temperature on the distribution ratio (D_M) of uranium are studied. Ata given strength of the extractant, the extraction of uranyl nitrate first increasesrapidly with the increase of acid concentration while at high acidity, above 6mol/lHNO_3, the extraction decreases. The D_M increases with the increase of extractantconcentration and decreases with the elevation of temperature. The effects observed in the synergetic extraction system are similar to thosereported for the single extractant system. However, the D_M in the synergetic sys-tem is higher than the sum of D's separately obtained from the two correspondingextractants.

Key words Uranium DOSO TBP Synergetic extraction

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