

## TBP萃淋树脂色层分离、分光光度法测定八氧化三铀中微量钍

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**摘要** <正> 一、前言 测定大量铀中微量钍,主要采用溶剂萃取法或离子交换法预先除去大量铀,然后用分光光度法测定钍。溶剂萃取法分离铀很难分离干净,铀的干扰严重。离子交换法分离铀费时较长。因此我们采用萃取色层法分离。根据钍与铀在TBP-盐酸介质中分配系

**关键词** [八氧化三铀](#) [色层分离](#) [分光光度法](#) [钍](#)

分类号

### DETERMINATION OF TRACE Th IN U<sub>3</sub>O<sub>8</sub> BY USING THE CHROMATOGRAPHY OF TBP-LEVEXTREL AND SPECTROPHOTOMETRY

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**Abstract** In this paper a spectrophotometry using arsenazo III is used to determine trace Th in U<sub>3</sub>O<sub>8</sub>. The sample of U<sub>3</sub>O<sub>8</sub>, is dissolved in HNO<sub>3</sub> and then turned into HCl medium. Uranium is absorbed in TBP-levextrel at 1:1 HCl medium and thorium is eluted by 1:1 HCl. The absorption obeys the Beer law when the content of Th is in the range of 0.125--1.25 μg/10 ml. If the uranium quantity of the U<sub>3</sub>O<sub>8</sub> sample is 250 mg and the content of Th is 1 ppm., the precision is ±6% and the recovery is 98%. The detected limit is 0.5 ppm six samples can be performed within eight hours for one operator.

**Key words** [U<sub>3</sub>O<sub>8</sub>](#) [Chromatographic separation](#) [Spectrophotometric method](#) [Th](#)

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