

离子色谱法(IC)测定高放废液中的Na⁺,K⁺离子

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摘要 应用离子色谱法测定高放废液中的Na⁺和K⁺离子。先以EDTA螯合树脂预处理柱,除去废液中的过渡金属和重金属离子,再用高效低容量离子交换树脂单柱离子色谱法分析测定Na⁺、K⁺离子。当Na⁺和K⁺离子含量为μg/ml水平时,方法精度好于5%。

关键词 [离子色谱](#) [高放废液](#) [Na⁺离子](#) [K⁺离子](#)

分类号

DETERMINATION OF Na⁺ AND K⁺ IONS IN THE HIGH-LEVEL LIQUID WASTE BY ION CHROMATOGRAPHY (IC)

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Abstract The determination of Na⁺ and K⁺ ions in the high-level liquid waste is investigated using ion chromatography. In order to protect the low capacity ion exchange resin in single column IC and remove the transition metal as well as other heavy metal ions that are contained in liquid waste, the pretreatment column with EDTA chelating resin is used. Those impurity metal ions are strongly absorbed by EDTA chelating resin and 100% of Na⁺ and K⁺ ions in the solution are eluted. The ability of the decontamination of EDTA chelating resin is satisfactory. The sample of the high-level liquid waste is diluted appropriately, then an aliquot of the sample is passed through the pretreatment column with EDTA chelating resin, the eluate is analysed by single column ion chromatography. The precision of this method is better than 5% for the determination of Na⁺ and K⁺ ions (at μg·ml⁻¹ level)

Key words [Ion Chromatography](#). [High-level liquid waste](#)[Na⁺ ion](#)[K⁺ ion](#).

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