

化学

## $^{241}\text{Am}$ 在砂土中的存在形式研究

施燕梅; 王旭辉; 周国庆; 张海涛; 谢金川; 李梅; 王耀芹

西北核技术研究所, 陕西 西安710024

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**摘要** 采用Tessier连续提取法, 研究了某地区受放射性污染砂质土壤以及未受污染土壤中人工加入示踪剂后 $^{241}\text{Am}$ 的存在形式。结果表明, 两类土壤中 $^{241}\text{Am}$ 的存在形式差异明显, 原位放射性污染土壤中的 $^{241}\text{Am}$ 均以残渣态这种优势态存在, 核素能稳定存在于土壤中; 而人工加入的外源示踪 $^{241}\text{Am}$ 在相当长的一段时间内以碳酸盐结合态为主要存在形式, 与土壤结合不稳固, 迁移活性高, 对环境具有潜在的威胁。

关键词  [\$^{241}\text{Am}\$](#)  [连续提取](#) [存在形式](#)

分类号

## Existing Form of $^{241}\text{Am}$ in Sandy Soil

SHI Yan-mei; WANG Xu-hui; ZHOU Guo-qing; ZHANG Hai-tao; XIE Jin-chuan; LI Mei; WANG Yao-qin

Northwest Institute of Nuclear Technology, Xi'an 710024, China

**Abstract** The Tessier sequential extraction method was employed to study the existing form of  $^{241}\text{Am}$  in sandy soil samples which were contaminated by radioactivity. In addition, the process was also applied to the soil into which  $^{241}\text{Am}$  was added purposely. The experimental results reveal that the associations of  $^{241}\text{Am}$  in two kinds of soils are quite different from each other. In the radioactively contaminated soil, a significant proportion of  $^{241}\text{Am}$  was associated with residual phase. It indicates that  $^{241}\text{Am}$  in the soil has rather low possibility for migration. However, the  $^{241}\text{Am}$  in simulant soil was mainly associated with carbonate fraction for a long time after added into the soil. It indicates that  $^{241}\text{Am}$  in simulant soil has high possibility for migration.

**Key words**  [\$^{241}\text{Am}\$](#)  [sequential extraction](#) [existing form](#)

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