IMPROVEMENT ON ACCURACY OF ACTIVITY FOR NUCLIDES WITH BETA DECAY

II. THE ELIMINATION OF THE TYPE B UNCERTAINTY

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ABSTRACT

Using the results calculated and by changing the upper limit of fitting region and extrapolating, the optimisation of upper limit of fitting region can be determinated. Then, the type B uncertainty resulted from the different fitting orders and the gate settings can be eliminated. The final uncertainties of the most probable activity are 0.1%, 0.4% and 0.5% for nuclides ¹³⁴Cs, ¹⁷⁷Lu and ⁶³Ni, respectively.

Key words Uncertainty Type B Elimination Upper limit

"钌、碘、氚在动力堆元件溶解和钌在废液蒸发 过程中逸出行为的研究"通过部级鉴定

由中国原子能科学研究院放射化学研究所放射性废物处理研究室和北京核工程研究设计院共同完成的"钌、碘、氚在动力堆元件溶解和钌在废液蒸发过程中逸出行为的模拟研究"通过了中核总核燃料局组织的部级鉴定。

鉴定委员会认为:该项工作首次综合研究了元件溶解和高、中放废液蒸发过程中3个元素的逸出行为,成果属国内领先水平。该研究成果为中试厂提供了可靠的数据,可应用于燃料溶解和高放废液处理工艺中。

摘自中国原子能科学研究院院报