CERTIFICATE OF ALPHA STANDARD SOURCE

Radionuclide: Am-241 Half-life: 432.0 ± 0.2 Y

Customer: EASTMAN KODAK CO. P.O. No.: XG 228-19824

Catalog No.: AF-241 Source No.: 170-94 Reference Date: SEP 11, 1986

Contained Radioactivity: 0.0989 μCi

Description of Source

a. Capsule type: A-1

b. Nature of active deposit: ELECTRODEPOSITED AND DIFFUSION BONDED AMERICIUM METAL

c. Active diameter: 5 mm

d. Backing: PLATINUM

e. Cover: NONE

Radioimpurities

NONE DETECTED

Method of Calibration

The source was assayed using

( ) Alpha spectrometry with a surface barrier detector.

(✓) An internal gas flow proportional counter.

( ) Large area low alpha background counter.

( ) Gamma Spectrometry, integrating under the _____ Mev. peak(s). The branching ratio(s) used was/were _____ gamma rays per decay.

( ) The source was prepared from a weight aliquot of solution whose activity in uCi/gram was determined by the method above.

Uncertainty of Measurement

a. Systematic uncertainty of standard/efficiency: ± 2.0 %

b. Random uncertainty

1. In assay: ± 0.2 %
2. In weighing(s): ± _____ %

c. Total Uncertainty: ± 2.2 % at the 99% confidence level.

NBS Traceability

This calibration is implicitly traceable to the National Bureau of Standards.

Notes

1. Nuclear data were taken from "Table of Isotopes", Seventh Edition, edited by C. Michael Lederer et al.
2. IPL participates in an NBS measurement assurance program to establish and maintain implicit traceability for a number of nuclides, based on the blind assay (and later NBS certification) of Standard Reference Materials. (As in NRC Regulatory Guide 4.15)

CAUTION!
DELICATE SURFACE
DO NOT WIPE
ACTIVE AREA

Quality Control

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