

ISO 11483:2026-09 (E)

Nuclear fuel technology - Preparation of plutonium sources and determination of $^{238}\text{Pu}/^{239}\text{Pu}$ isotope ratio by alpha spectrometry

Contents	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Reagents	2
6 Apparatus	2
7 Source preparation	3
7.1 General	3
7.2 Source preparation by drop deposition	3
7.2.1 Source preparation on electrochemically polished stainless-steel disc [2]	3
7.2.2 Source preparation on porcelain disc [3]	3
7.3 Source preparation by electrodeposition [4] [5]	4
8 Alpha spectrometry	4
8.1 Measurement	4
8.2 Spectra evaluation	4
8.2.1 General	4
8.2.2 Geometric-progression decrease method [9]	5
8.2.3 Exponential decrease method	7
9 Expression of results	8
10 Interference of americium	8
11 Uncertainty evaluation	9
12 Interferences	9
Annex A (informative) Combined standard uncertainty evaluation	10
Bibliography	16