

ISO 18589-6:2019-12 (E)

Measurement of radioactivity in the environment - Soil - Part 6: Gross alpha and gross beta activities - Test method using gas-flow proportional counting

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols	2
5	Principle	2
6	Chemical reagents and equipment	2
7	Procedure	3
7.1	Preparation of sources	3
7.2	Calibration	3
7.2.1	Principle	3
7.2.2	Procedure	4
7.3	Calibration curves	5
7.4	Background determination	5
7.5	Measurement	5
8	Expression of results	5
8.1	Activities per unit mass	5
8.1.1	Calculation of alpha activity per unit of mass	5
8.1.2	Calculation of beta activity per unit of mass	5
8.2	Standard uncertainty	6
8.2.1	Standard uncertainty of the alpha activity per unit of mass	6
8.2.2	Standard uncertainty of the beta activity per unit of mass	6
8.3	Decision threshold	7
8.3.1	Decision threshold of the alpha activity per unit of mass	7
8.3.2	Decision threshold of the beta activity per unit of mass	7
8.4	Detection limit	8
8.4.1	Detection limit of the alpha activity per unit of mass	8
8.4.2	Detection limit of the beta activity per unit of mass	8
8.5	Confidence limits	8
9	Test report	9
Annex A (informative) Preparation of reference measurement standards with plutonium 239		10
Bibliography		12