

ISO 14239:2017-07 (E)

Soil quality - Laboratory incubation systems for measuring the mineralization of organic chemicals in soil under aerobic conditions

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Methods	1
4.1	General requirements	1
4.1.1	Soil collection and characterization	2
4.1.2	Test material	2
4.1.3	Incubation conditions	2
4.2	Choice of incubation systems	2
4.3	Flow-through system	4
4.3.1	Principle	4
4.3.2	Materials and reagents	5
4.3.3	Apparatus and glassware	6
4.3.4	Procedure	6
4.4	Soda-lime column system	7
4.4.1	Principle	7
4.4.2	Materials and reagents	8
4.4.3	Apparatus and glassware	9
4.4.4	Procedure	9
4.5	Biometer system	12
4.5.1	Principle	12
4.5.2	Materials and reagents	13
4.5.3	Apparatus and glassware	14
4.5.4	Procedure	14
4.6	Radiorespirometer	14
4.6.1	Principle	14
4.6.2	Materials and reagents	15
4.6.3	Apparatus, glass- and plastic-ware	15
4.6.4	Procedure	15
4.7	Microradiorespirometer	16
4.7.1	Principle	16
4.7.2	Materials and reagents	16
4.7.3	Apparatus, and plastic-ware	16
4.7.4	Procedure	17
4.8	Miniaturized respirometer	17
4.8.1	Principle	17
4.8.2	Materials and reagents	18
4.8.3	Apparatus, and plastic-ware	18
4.8.4	Procedure	19
5	Calculation and expression of results	19
5.1	For unlabelled test materials	19
5.2	For ¹⁴ C-labelled test materials	20

6	Test report	20
	Bibliography	21