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 Termsanddefinitions 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 14C-labelled test materials 20

6 Test report 20

Bibliography 21