

ISO/TS 22939:2019 (E)

Soil quality — Measurement of enzyme activity patterns in soil samples using fluorogenic substrates in micro-well plates

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Abbreviated terms
5	Principle
6	Reagents
6.1	Buffers
6.2	Substrates and standards
6.2.1	Preparation of standard solutions
6.2.1.1	4-Methylumbelliferone (MUF) solution
6.2.1.2	7-Amino-4-methylcoumarin (AMC) solution
6.2.2	Preparation of substrate solutions
6.2.3	Preparation of multi-well plates
6.2.4	Preparation of standard plates
6.2.5	Preparation of substrate plates
6.2.6	Fluorogenic substrates
7	Apparatus and materials
8	Procedure
8.1	Sampling
8.2	Sample preparation
8.2.1	Homogenization
8.2.2	Preparation of dilutions
8.2.3	Sample distribution
8.3	Incubation
8.4	Fluorescence measurements
9	Calculation of results
10	Expression of results
11	Test report
Annex A	(informative) Guidance on the use of freshly prepared substrates
A.1	Introduction
A.2	Reagents
A.2.1	Buffer
A.2.2	Substrates
A.2.3	Standards
A.3	Procedure
A.3.1	Substrate plates
A.3.2	Standard plates
A.3.3	Incubation

Annex B (informative) Example of a graph for calculation

Page count: 13