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

*Qualité du sol — Mesure de l'activité enzymatique dans des
échantillons de sol en utilisant des substrats colorimétriques*

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Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions, symbols and abbreviated terms.....	1
3.1 Terms and definitions.....	1
3.2 Symbols and abbreviated terms.....	1
4 Principle.....	2
5 Reactives.....	2
5.1 Buffers and reagents.....	2
5.2 Substrates and standards.....	5
5.2.1 Preparation of standard solutions.....	5
5.2.2 Preparation of substrate solutions.....	5
6 Apparatus and materials.....	7
7 Procedure.....	8
7.1 Establishment of calibration curves.....	8
7.1.1 General.....	8
7.1.2 Solution of PNP.....	8
7.1.3 Solution of β -naphthylamine.....	8
7.1.4 Solution of ammonium chloride.....	8
7.2 Sampling.....	9
7.2.1 Sample preparation.....	9
7.2.2 Addition of substrate.....	10
7.2.3 Absorbance measurements.....	11
7.2.4 Measurements of urease activities.....	12
8 Calculation of results.....	12
9 Expression of results.....	12
10 Validity criteria.....	12
11 Interlaboratory validation.....	13
12 Test report.....	13
Annex A (informative) Validation of the method and intralaboratory tests for evaluating soil enzymatic activities with colorimetric method.....	14
Annex B (informative) International ring test for evaluating soil enzymatic activities with colorimetric method.....	19
Bibliography.....	28

Foreword

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Introduction

Microorganisms are responsible for many key processes in the cycle of elements. Enzymes are responsible for the degradation of organic molecules and their mineralization. The main postulate is the microbial origin of soil enzymes, even if plant root exudates include enzymes. Extracellular enzymes in soil play key roles in the biodegradation of organic macromolecules. The simultaneous monitoring of several enzyme activities important in the biodegradation of organic compounds and mineralization of carbon, nitrogen, phosphorus and sulfur in soil may reveal harmful effects caused by chemicals and other anthropogenic impacts. However, the measurements carried out under selected laboratory conditions using artificial substrates cannot be a substitute for the actual rate of enzymatic processes in soil *in situ*.

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