

# ISO/TS 20131-1:2018-07 (E)

## Soil quality - Easy laboratory assessments of soil denitrification, a process source of N<sub>2</sub>O emissions - Part 1: Soil denitrifying enzymes activities

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Symbols and abbreviated terms (except chemical and reagents) .....	2
5	Principle .....	2
6	Materials .....	2
6.1	Test materials .....	2
6.2	Apparatus .....	2
6.3	Test soil .....	3
6.4	Reagents .....	3
7	Procedures .....	3
7.1	Soil sampling and preparation .....	3
7.2	Soil slurries incubation .....	4
7.3	Gas samples analysis .....	4
8	Validity criteria .....	4
9	Additional suggestions .....	4
9.1	Soil slurries incubation .....	4
9.2	Control of procedure .....	4
9.3	Gas samples analysis .....	4
10	Data presentation and interpretation .....	5
10.1	Denitrifying Enzyme Activity (DEA) .....	5
10.2	Additional suggestion: relative production of N <sub>2</sub> O during denitrification (r) .....	5
11	Test report .....	6
Annex A (informative) International ring test .....		7
Bibliography .....		12