

# ISO 11042-1:1996-08 (E)

## Gas turbines - Exhaust gas emission - Part 1: Measurement and evaluation

---

<b>Contents</b>		<b>Page</b>
1	Scope .....	1
2	Normative references .....	1
3	Definitions .....	1
4	Symbols .....	2
5	Conditions .....	4
5.1	Gas turbine and fuel .....	4
5.2	Measured values .....	4
5.3	Standard conditions .....	4
6	Measurements .....	5
6.1	Determination of constituents in exhaust gas .....	5
6.2	Guideline for the arrangement of the measurement system .....	5
6.3	Performing the test, test report, evaluation .....	6
7	Instrumentation .....	8
7.1	Types of measuring device .....	8
7.2	Specification for NO <sub>x</sub> analysers .....	8
7.3	Specification for CO and CO <sub>2</sub> analysers .....	9
7.4	Specification for sulfur oxides analysers .....	10
7.5	Specification for unburned and partially burned hydrocarbons analysers .....	11
7.6	Specification for ammonia analysers .....	12
7.7	Specification for oxygen analysers .....	13
7.8	Specification for smoke analysers .....	15
7.9	Specification for solid particle analysers .....	16
8	Quality of measurement .....	23
8.1	Preamble .....	23
8.2	Methods for calibration .....	23
9	Conversion of data .....	23
9.1	General .....	23
9.2	Conversion between wet and dry exhaust gas .....	24
9.3	Conversion to the particular exhaust gas oxygen level .....	24
9.4	Conversion to the constituent mass flow related to the dry exhaust gas volume flow at normal conditions and to a specific oxygen content .....	24
9.5	Conversion to power Output related values .....	24
9.6	Conversion to consumed fuel energy related values .....	24
Annexes A Typical example of test results and their evaluation .....		25
B Information regarding the major constituents of the exhaust gas .....		29
C Physical properties of gaseous constituents .....		30
D Bibliography .....		33