

ISO 12828-2:2016-12 (E)

Validation methods for fire gas analyses - Part 2: Intralaboratory validation of quantification methods

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and abbreviated terms	2
5 General considerations	2
5.1 Actual concentration and measured concentration	2
5.2 Selection of analytical methods with respect to the physical fire model used	3
5.3 Validation of analytical techniques	3
6 Sampling and measurement effectiveness	5
6.1 General considerations	5
6.2 Sampling probe	6
6.3 Transportation of effluent from sampling probe to analysis system	6
6.4 Conditioning of the effluent	7
6.5 Measurement technique	7
7 Validation steps	7
7.1 General	7
7.2 Definition of the range of application and range of calibration	8
7.3 Validation of the independence from the matrix effects	9
7.4 Validation of the specificity of the chosen method	9
7.4.1 General	9
7.4.2 Simple method	9
7.4.3 Quantitative method	10
7.5 Influence of the measurement technique on results	11
7.5.1 Generalities	11
7.5.2 Simple methods	13
7.5.3 Quantitative method	13
7.6 Calibration studies	16
7.6.1 General	16
7.6.2 Analysis of calibration model using the Fisher statistic	18
7.6.3 The BIC (Bayesian Information Criterion)	18
7.6.4 Analysis of calibration model using the AICc (Corrected Akaike Information Criterion)	19
8 Determination of uncertainties	19
Annex A (informative) Example of application of validation steps: Analysis of hydrogen chloride and hydrogen bromide from trapping solutions	20
Annex B (informative) Example of an uncertainty calculation: Analysis of hydrogen chloride in trapping solutions	30
Bibliography	33