

ISO 22036:2024-01 (E)

Environmental solid matrices - Determination of elements using inductively coupled plasma optical emission spectrometry (ICP-OES)

Contents		Page
	Foreword.....	iv
	Introduction.....	v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle	2
5	Interferences	3
	5.1 General.....	3
	5.2 Spectral interferences.....	3
	5.3 Non-spectral interferences.....	4
6	Reagents	5
7	Apparatus	7
8	Procedure	8
	8.1 Cleaning of glassware.....	8
	8.2 Instrument performance parameters.....	8
	8.3 Instrument optimization.....	9
	8.4 Instrument set-up.....	9
	8.4.1 General requirements.....	9
	8.4.2 Software method development, wavelength selection.....	9
	8.4.3 Inter-element correction.....	9
	8.4.4 Reference element.....	9
	8.4.5 Long-term stability.....	10
	8.4.6 Preliminary instrument check.....	10
	8.5 Calibration.....	10
	8.5.1 Linear calibration function.....	10
	8.5.2 Standard addition calibration.....	11
	8.6 Solutions to be prepared.....	11
	8.6.1 General.....	11
	8.6.2 Blank calibration solution.....	11
	8.6.3 Blank test solution.....	11
	8.6.4 Calibration solutions.....	11
	8.6.5 Test sample solutions.....	12
	8.6.6 Test solutions.....	12
	8.7 Measurement procedure.....	12
9	Calculation	12
10	Expression of results	13
11	Performance characteristics	13
	11.1 Calibration check.....	13
	11.2 Interference.....	13
	11.3 Recovery.....	14
	11.4 Performance data.....	14

12	Test report	14
Annex A (informative)	Repeatability and reproducibility data	15
Annex B (informative)	Wavelengths and estimated instrumental detection limits	21
Annex C (normative)	Inter-element correction	27
	Bibliography	29