

DIN EN ISO 22036:2024-04 (E)

Environmental solid matrices - Determination of elements using inductively coupled plasma optical emission spectrometry (ICP-OES) (ISO 22036:2024)

Contents		Page
European foreword		3
Foreword		4
Introduction		5
1 Scope		6
2 Normative references		6
3 Terms and definitions		6
4 Principle		7
5 Interferences		8
5.1 General		8
5.2 Spectral interferences		8
5.3 Non-spectral interferences		9
6 Reagents		10
7 Apparatus		12
8 Procedure		13
8.1 Cleaning of glassware		13
8.2 Instrument performance parameters		13
8.3 Instrument optimization		14
8.4 Instrument set-up		14
8.4.1 General requirements		14
8.4.2 Software method development, wavelength selection		14
8.4.3 Inter-element correction		14
8.4.4 Reference element		14
8.4.5 Long-term stability		15
8.4.6 Preliminary instrument check		15
8.5 Calibration		15
8.5.1 Linear calibration function		15
8.5.2 Standard addition calibration		16
8.6 Solutions to be prepared		16
8.6.1 General		16
8.6.2 Blank calibration solution		16
8.6.3 Blank test solution		16
8.6.4 Calibration solutions		16
8.6.5 Test sample solutions		17
8.6.6 Test solutions		17
8.7 Measurement procedure		17
9 Calculation		17
10 Expression of results		18
11 Performance characteristics		18
11.1 Calibration check		18
11.2 Interference		18
11.3 Recovery		19
11.4 Performance data		19
12 Test report		19
Annex A (informative) Repeatability and reproducibility data		20
Annex B (informative) Wavelengths and estimated instrumental detection limits		26
Annex C (normative) Inter-element correction		32
Bibliography		34