

DIN EN 15991:2011-04 (E)

Testing of ceramic and basic materials - Direct determination of mass fractions of impurities in powders and granules of silicon carbide by inductively coupled plasma optical emission spectrometry (ICP OES) with electrothermal vaporisation (ETV)

Contents

| | Page |
|--|-----------|
| Foreword | 3 |
| 1 Scope | 4 |
| 2 Principle | 4 |
| 3 Spectrometry | 4 |
| 4 Apparatus | 6 |
| 5 Reagents and auxiliary material | 7 |
| 6 Sampling and sample preparation | 7 |
| 7 Calibration | 7 |
| 8 Procedure | 8 |
| 9 Wavelength and working range | 9 |
| 10 Calculation of the results and evaluation | 9 |
| 11 Reporting of results | 9 |
| 12 Precision | 10 |
| 13 Test report | 10 |
| Annex A (informative) Results of interlaboratory study | 11 |
| Annex B (informative) Wavelength and working range | 16 |
| Annex C (informative) Possible interferences and their elimination | 18 |
| Annex D (informative) Information regarding the evaluation of the uncertainty of the mean value | 21 |
| Annex E (informative) Commercial certified reference materials | 22 |
| Annex F (informative) Information regarding the validation of an analytical method based on liquid standards at the example of SiC and graphite | 23 |
| Bibliography | 26 |