

ISO 21079-3:2008-04 (E)

**Chemical analysis of refractories containing alumina, zirconia, and silica -
Refractories containing 5 % to 45 % of ZrO₂ (alternative to the X-ray
fluorescence method) - Part 3: Flame atomic absorption spectrometry (FAAS)
and inductively coupled plasma emission spectrometry (ICP-AES)**

Contents	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Instrumental methods using ICP-AES	1
3.1 Determination of residual silica in solution by ICP-AES	1
3.2 Determination of silicon(IV) oxide, aluminium oxide, iron(III) oxide, titanium(IV) oxide, calcium oxide, magnesium oxide, chromium(III) oxide and hafnium oxide using stock solutions (S1), (S'1) or (S"1) by ICP-AES	3
3.3 Determination of calcium oxide, magnesium oxide, sodium oxide and potassium oxide using stock solutions (S4) by ICP-AES	7
4 Instrumental methods using Flame Atomic Absorption Spectrometry (FAAS)	8
4.1 Determination of calcium oxide, magnesium oxide, sodium oxide and potassium oxide using stock solutions (S3) by FAAS	8
4.2 Determination of chromium(III) oxide by FAAS spectrometry	10
5 Calculation and expression of test results	12
6 Test report	12
Bibliography	13