

# DIN EN ISO 21079-3:2008-08 (E)

**Chemical analysis of refractories containing alumina, zirconia and silica -  
Refractories containing 5 % to 45 % of ZrO<sub>2</sub> (alternative to the X-ray  
fluorescence method) - Part 3: Flame atomic absorption spectrophotometry (FAAS)  
and inductively coupled plasma emission spectrometry (ICP-AES) (ISO 21079-3:2008)**

---

<b>Contents</b>		<b>Page</b>
Foreword .....		3
1	Scope .....	4
2	Normative references .....	4
3	Instrumental methods using ICP-AES .....	4
3.1	Determination of residual silica in solution by ICP-AES .....	4
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 .....	6
3.3	Determination of calcium oxide, magnesium oxide, sodium oxide and potassium oxide using stock solutions (S4) by ICP-AES .....	10
4	Instrumental methods using Flame Atomic Absorption Spectrometry (FAAS) .....	11
4.1	Determination of calcium oxide, magnesium oxide, sodium oxide and potassium oxide using stock solutions (S3) by FAAS .....	11
4.2	Determination of chromium(III) oxide by FAAS spectrometry .....	13
5	Calculation and expression of test results .....	15
6	Test report .....	15
Bibliography .....		16