

ISO 14237:2010-07 (E)

Surface chemical analysis - Secondary-ion mass spectrometry - Determination of boron atomic concentration in silicon using uniformly doped materials

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Principle	1
4	Reference materials	1
4.1	Primary reference material	1
4.2	Secondary reference materials	2
5	Apparatus	2
6	Specimen	3
7	Procedure	3
7.1	Adjustment of secondary-ion mass spectrometer	3
7.2	Optimizing the secondary-ion mass spectrometer settings	3
7.3	Specimen introduction	3
7.4	Detected ions	4
7.5	Calibration	4
7.6	Measurement of test specimen	6
8	Expression of results	6
8.1	Method of calculation	6
8.2	Precision	7
9	Test report	8
Annex A (informative) Determination of carrier density in silicon wafer		9
Annex B (informative) Boron isotope ratio measured by SIMS		11
Annex C (normative) Procedures for evaluation of apparatus performance		14
Annex D (informative) Statistical report on interlaboratory test programme		16
Bibliography		19