

ISO 23812:2009-04 (E)

Surface chemical analysis - Secondary-ion mass spectrometry - Method for depth calibration for silicon using multiple delta-layer reference materials

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviated terms	1
5	Requirements on multiple delta-layer reference materials	3
6	Measurement procedures	3
7	Calibration procedures	4
7.1	Principle of calibration	4
7.2	Determination of sputtering rate for reference material	5
7.3	Calibration of the depth scale for test specimens	7
7.4	Uncertainty in calibrated depth	8
8	Expression of results	8
8.1	Calibration under the same sputtering conditions as used for the reference material	8
8.2	Calibration using a sputtering rate different from that of the test specimen	9
8.3	Calibration with respect to concentration	9
9	Test report	9
Annex A (informative) Projected range of oxygen-ion in silicon		10
Annex B (informative) Estimations of peak shifts due to atomic mixing		11
Annex C (informative) Estimations of peak shift due to peak coalescence		14
Annex D (informative) Derivation of uncertainty		17
Bibliography		19