

ISO 14606:2015-12 (E)

Surface chemical analysis - Sputter depth profiling - Optimization using layered systems as reference materials

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Terms and definitions	1
3	Symbols and abbreviated terms	2
4	Setting parameters for sputter depth profiling	2
4.1	General	2
4.2	Auger electron spectroscopy	3
4.3	X-ray photoelectron spectroscopy	4
4.4	Secondary ion mass spectrometry	4
5	Depth resolution at an ideally sharp interface in sputter depth profiles	4
5.1	Measurement of depth resolution	4
5.2	Average sputtering rate	5
5.3	Depth resolution z	5
6	Procedures for optimization of parameter settings	6
6.1	Alignment of sputtered area with a smaller analysis area	6
6.1.1	General	6
6.1.2	AES	7
6.1.3	XPS with a small probe (for example monochromator)	7
6.1.4	XPS with a large area source (for example without monochromator)	7
6.1.5	SIMS	7
6.2	Optimization of parameter settings	8
Annex A (informative)	Factors influencing the depth resolution	9
Annex B (informative)	Typical single-layered systems as reference materials	11
Annex C (informative)	Typical multilayered systems used as reference materials	12
Annex D (informative)	Uses of multilayered systems	13
Bibliography		14