

ISO 18118:2015-04 (E)

Surface chemical analysis - Auger electron spectroscopy and X-ray photoelectron spectroscopy - Guide to the use of experimentally determined relative sensitivity factors for the quantitative analysis of homogeneous materials

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviated terms	2
5	General information	3
6	Measurement conditions	4
6.1	General	4
6.2	Excitation source	4
6.3	Energy resolution	4
6.4	Energy step and scan rate	4
6.5	Signal intensity	4
6.6	Gain and time constant (for AES instruments with analogue detection systems)	4
6.7	Modulation to generate a derivative spectrum	4
7	Data-analysis procedures	5
8	Intensity-energy response function	5
9	Determination of chemical composition using relative sensitivity factors	5
9.1	Calculation of chemical composition	5
9.1.1	General	5
9.1.2	Composition determined from elemental relative sensitivity factors	6
9.1.3	Composition determined from atomic relative sensitivity factors or average matrix relative sensitivity factors	6
9.2	Uncertainties in calculated compositions	6
Annex A (normative) Formulae for relative sensitivity factors		7
Annex B (informative) Information on uncertainty of the analytical results		20
Bibliography		23