

ISO 16129:2018 (E)

Surface chemical analysis — X-ray photoelectron spectroscopy — Procedures for assessing the day-to-day performance of an X-ray photoelectron spectrometer

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms, definitions and abbreviations
4	Initial approach
5	Initial instrument calibration, alignment and assessment
6	Test specimen selection
6.1	General information
6.2	The conductive specimen
6.3	The non-conductive specimen
6.4	Specimen for assessing the X#ray source
7	Collection of reference data
7.1	General information
7.2	Rapid test of the instrument using a conductive specimen
7.2.1	Specimen mounting and pre-treatment
7.2.2	Survey spectrum
7.2.3	High-resolution spectrum
7.3	Rapid test of the instrument using a non-conductive specimen
7.3.1	Specimen mounting and positioning
7.3.2	High-resolution spectrum
7.4	Rapid test of the X#ray source using a phosphor specimen
7.5	Rapid test of the X#ray source using a uniform conductive specimen
8	Collection of subsequent performance data
9	Analysis of the performance data
9.1	General information
9.2	Survey spectrum
9.3	High-resolution spectrum from the conductive specimen
9.4	High-resolution spectrum from the non-conductive specimen
9.5	Images from the phosphor specimen
9.6	Images from the uniform conductive specimen
9.7	Spectrum ratios
10	Control charts