TECHNICAL SPECIFICATION

ISO/TS 15338

First edition
2009-04-01

Surface chemical analysis — Glow discharge mass spectrometry (GD-MS) — Introduction to use

Analyse chimique des surfaces — Spectrométrie de masse à décharge luminescente (GD-MS) — Introduction à l'utilisation

Reference number
ISO/TS 15338:2009(E)

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

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An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TS 15338 was prepared by Technical Committee ISO/TC 201, *Surface chemical analysis*, Subcommittee SC 8, *Glow discharge spectrometry*, based on Australian Standard AS 3685:1998.

Surface chemical analysis — Glow discharge mass spectrometry (GD-MS) — Introduction to use

1 Scope

This Technical Specification gives guidelines for the operation of glow discharge mass spectrometry (GD-MS) instruments and recommendations for the use of GD-MS. It is intended to be read in conjunction with the instrument manufacturers' manuals and recommendations.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 18115, *Surface chemical analysis — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 18115 and the following apply.

3.1
accuracy of measurement
closeness of the agreement between a result and the accepted reference value

3.2
elemental intensity
amount of ion current recorded for a particular element

3.3
pin cell
sample cell used for the analysis of wire and rod samples

3.4
precision of measurements
closeness of the agreement between independent test results obtained under stipulated conditions, normally reported as a standard deviation

3.5
pin, rod and wire samples
samples with cylindrical or square cross-section of nominal length typically 20 mm and not normally exceeding 10 mm across

3.6
transmission
ratio of the number of ions reaching the detector relative to the number of ions entering the mass analyser