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Jewellery and precious metals — Determination of high purity gold, silver, platinum and palladium — Difference method using SPARK-OES

Joaillerie, bijouterie et métaux précieux — Dosage de l'or, de l'argent, du platine et du palladium à haute pureté — Méthode par différence utilisant la SPARK-OES

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Foreword

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Jewellery and precious metals — Determination of high purity gold, silver, platinum and palladium — Difference method using SPARK-OES

1 Scope

This document specifies an analytical procedure for the determination of gold, silver, platinum and palladium with a nominal content of and above 999 ‰ (parts per thousand, by mass), using an optical emission spectrometer with excitation by spark discharge (SPARK-OES).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 11596, *Jewellery and precious metals — Sampling of precious metals and precious metal alloys*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
SPARK-OES
optical emission spectrometer with excitation by spark discharge, suitable for the quantification of trace elements in a solid metallic sample

3.2
spot
target area on the sample where the spark strikes the surface and creates a burn mark

3.3
certified reference material
CRM
reference material characterized by a metrologically valid procedure for one or more specified properties, accompanied by a reference material certificate that provides the value of the specified property, its associated uncertainty, and a statement of metrological traceability

[SOURCE: ISO 17034:2016, 3.2, modified — Notes to entry have been deleted.]

3.4
calibration standard
material with appropriate homogeneity whose exact composition is known and which can be used to calibrate the *SPARK-OES* (3.1)

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