International Standard

ISO 11456

First edition
2025-10

Copper and zinc sulfide concentrates — Determination of silver content — Acid digestion and flame atomic absorption spectrometric or inductively coupled plasma optical emission spectrometric method

Concentrés sulfurés de cuivre et de zinc — Dosage de l'argent — Méthode par digestion acide et spectrométrie d'absorption atomique dans la flamme ou spectroscopie d'émission optique par plasma à couplage inductif

Reference number
ISO 11456:2025(en)

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Published in Switzerland

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Foreword

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This document was prepared by Technical Committee ISO/TC 183, *Copper, lead, zinc and nickel ores and concentrates*.

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Copper and zinc sulfide concentrates — Determination of silver content — Acid digestion and flame atomic absorption spectrometric or inductively coupled plasma optical emission spectrometric method

WARNING — This document can involve hazardous materials and equipment. It is the responsibility of the user of this document to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This document specifies an acid digestion and flame atomic absorption spectrometric (AAS) method, or inductively coupled plasma optical emission spectrometric (ICP-OES) method for the determination of the mass fraction of silver in copper and zinc sulfide concentrates.

The method is applicable to concentrates having silver contents in the following ranges.

— copper concentrates: 10 g/t to 800 g/t ;

— zinc concentrates: 10 g/t to 800 g/t

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 648, *Laboratory glassware — Single-volume pipettes*

ISO 1042, *Laboratory glassware — One-mark volumetric flasks*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 4787, *Laboratory glass and plastic ware — Volumetric instruments — Methods for testing of capacity and for use*

ISO 8466-2, *Water quality — Calibration and evaluation of analytical methods and estimation of performance characteristics — Part 2: Calibration strategy for non-linear second-order calibration functions*

ISO 9599, *Copper, lead, zinc and nickel sulfide concentrates — Determination of hygroscopic moisture content of the analysis sample — Gravimetric method*

ISO 12743, *Copper, lead, zinc and nickel concentrates — Sampling procedures for determination of metal and moisture content*

3 Terms and definitions

No terms and definitions are listed in this document.

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/

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