INTERNATIONAL STANDARD

ISO 13547-2

First edition
2014-11-15

Copper, lead, zinc and nickel sulfide concentrates — Determination of arsenic —

Part 2: Acid digestion and inductively coupled plasma atomic emission spectrometric method

Concentrés sulfurés de cuivre, de plomb et de zinc — Dosage de l'arsenic —

Partie 2: Méthode par digestion acide et plasma induit par haute fréquence

Reference number
ISO 13547-2:2014(E)

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Published in Switzerland

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Foreword

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ISO 13547 consists of the following parts, under the general title *Copper, lead, zinc and nickel sulfide concentrates — Determination of arsenic*:

— *Part 1: Iron hydroxide concentration and inductively coupled plasma atomic emission spectrometric*

— *Part 2: Acid digestion and inductively coupled plasma atomic emission spectrometric method*

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Copper, lead, zinc and nickel sulfide concentrates — Determination of arsenic —

Part 2: Acid digestion and inductively coupled plasma atomic emission spectrometric method

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

1 Scope

This International Standard specifies an acid digestion and inductively coupled plasma atomic emission spectrometric (ICP-AES) method for the determination of the mass fraction of arsenic in copper, lead, zinc, and nickel sulfide concentrates as follows:

a) for copper sulfide concentrates, the method is applicable to the determination of mass fractions of arsenic from 0,05 % to 2,0 %;

b) for lead sulfide concentrates, the method is applicable to the determination of mass fractions of arsenic from 0,05 % to 1,0 %;

c) for zinc sulfide concentrates, the method is applicable to the determination of mass fractions of arsenic from 0,05 % to 0,6 %;

d) for nickel sulfide concentrates, the method is applicable to the determination of mass fraction of arsenic from 0,05 % to 1,0 %.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 4787, *Laboratory glassware — 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 and zinc sulfide concentrates — Determination of hygroscopic moisture in the analysis sample — Gravimetric method*

ISO 12743:2006, *Copper, lead, zinc and nickel concentrates — Sampling procedures for determination of metal and moisture content*

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