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ISO 13547-1:2014

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Australian STANDARD

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

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

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The following are represented on Committee MN-005:

- Australasian Institute of Mining and Metallurgy
- CSIRO
- Minerals Council of Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee MN-005 Copper, Lead, Zinc and Nickel Ores and Concentrates.

The objective of this Standard is to specify an iron hydroxide concentration 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.

This Standard is identical with, and has been reproduced from ISO 13547-1:2014, *Copper, lead, zinc and nickel sulfide concentrates—Determination of arsenic,* Part 1*: Iron hydroxide concentration and inductively coupled plasma atomic emission spectrometric method.*

As this Standard is reproduced from an International Standard, the following applies:

(a) In the source text 'this International Standard' should read 'this Australian Standard'.

(b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian Standard*	
ISO		AS	
9599	Copper, lead and zinc sulfide concentrates—Determination of hygroscopic moisture in the analysis sample—Gravimetric method	2816	Copper, lead and zinc sulfide concentrates—Determination of hygroscopic moisture in the analysis sample—Gravimetric method
		2862	Copper, lead, zinc and nickel concentrates—Sampling
12743	Copper, lead, zinc and nickel concentrates—Sampling procedures for determination of metal and moisture content	2862.1	Part 1: Sampling procedures for determination of metal and moisture content

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

The term 'normative' has been used in this Standard to define the application of the annexes to which it applies. A 'normative' annex is an integral part of a Standard.

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AUSTRALIAN STANDARD

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

Part 1:
Iron hydroxide concentration 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 iron hydroxide concentration 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*

ISO Guide 35:2006, *Reference materials — General and statistical principles for certification*

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