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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 8151.26-2023

**Methods for chemical analysis of zinc concentrates - Part 26:
Determination of silver content - Acid dissolution and flame
atomic absorption spectrometric method**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 26 of GB/T 8151 "Chemical Analysis Methods for Zinc Concentrates". GB/T 8151 has released the following parts.

- Part 1. Determination of zinc amount by precipitation separation Na₂EDTA titration method and extraction separation Na₂EDTA titration method;
- Part 2. Determination of sulfur content by combustion neutralization titration method;
- Part 3. Determination of iron content by Na₂EDTA titration method;
- Part 4. Determination of silica content by molybdenum blue spectrophotometry;
- Part 5. Determination of lead content by flame atomic absorption spectrometry;
- Part 6. Determination of copper content by flame atomic absorption spectrometry;
- Part 7. Determination of the amount of arsenic hydride generation-atomic fluorescence spectrometry and potassium bromate titration;
- Part 8. Determination of cadmium amount by flame atomic absorption spectrometry;
- Part 9. Determination of fluorine content by ion selective electrode method;
- Part 10. Determination of tin amount hydride generation-atomic fluorescence spectrometry;
- Part 11. Determination of antimony amount hydride generation-atomic fluorescence spectrometry;
- Part 12. Determination of silver content by flame atomic absorption spectrometry;

- Part 13.Determination of the amount of germanium hydride generation-atomic fluorescence spectrometry and lumefantrine spectrophotometry;
- Part 14.Determination of nickel content by flame atomic absorption spectrometry;
- Part 15.Determination of mercury amount by atomic fluorescence spectrometry;
- Part 16.Determination of cobalt content by flame atomic absorption spectrometry;
- Part 17.Determination of zinc hydroxide precipitation- Na_2EDTA titration method;
- Part 18.Determination of zinc content by ion exchange- Na_2EDTA titration method;
- Part 19.Determination of gold and silver content by lead precipitation or ash blowing fire assay and flame atomic absorption spectrometry;
- Part 20.Determination of copper, lead, iron, arsenic, cadmium, antimony, calcium and magnesium by inductively coupled plasma atomic emission spectrometry;
- Part 21.Determination of thallium content by inductively coupled plasma mass spectrometry and inductively coupled plasma-atomic emission spectrometry;
- Part 22.Determination of zinc, copper, lead, iron, aluminum, calcium and magnesium content by wavelength dispersive X-ray fluorescence spectrometry;
- Part 23.Determination of mercury content by solid injection direct method;
- Part 24.Determination of soluble zinc content by flame atomic absorption spectrometry;
- Part 25.Determination of indium content by flame atomic absorption spectrometry;
- Part 26.Determination of silver content by acid dissolution-flame atomic absorption spectrometry.

This document is equivalent to ISO 15247.2015 "Determination of silver content in zinc sulfide concentrates by acid dissolution-flame atomic absorption spectrometry".

A "Terms and Definitions" chapter has been added to this document.

This document has made the following minimal editorial changes.

---In order to coordinate with the existing standards, the name of the standard is changed to "Chemical Analysis Methods for Zinc Concentrates - Part 26.Determination of Silver Content Acid Dissolved

Solution-Flame Atomic Absorption Spectrometry";

---In order to unify the low-temperature heating temperature, additional information provisions are added in 8.3;

---The titles and formulas of the original ISO standard formula (7) and formula (8) are reversed, and the titles of formulas b) and c) in 10.3 are reversed, formula (7)

and formula (8) remain unchanged;

---Chapter 10 of the original ISO standard in the test report c) "The mass fraction of cadmium in the sample, expressed as a percentage" is incorrectly stated and changed to

"Silver content in the sample, expressed in g/t";

---The title "Copper Concentrate Sample Composition" in Table C.1 in the original ISO standard was incorrectly stated and was changed to "Zinc Concentrate Sample Composition";

---There are a total of 15 decimal point position errors in r (3 places), P (5 places), sr (3 places), and sL (4 places) in Table C.2 of the original ISO standard. According to

ISO 15247.1991 version correction;

---Extended and optimized the allowable difference of the highest point that cannot be fully displayed on the ordinate of Figure C.2 in Appendix C.

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

This document is the 26th part of the GB/T 8151 "Chemical Analysis Methods for Zinc Concentrates" series of standards. It is a supplement and supplement to this series of standards.

Complete. GB/T 8151.12-2012 "Methods for chemical analysis of zinc concentrates - Part 12.Determination of silver content by flame atomic absorption spectrometry"

and GB/T 8151.19-2012 "Methods for chemical analysis of zinc concentrates - Part 19.Determination of gold and silver content. Lead precipitation or ash blowing fire assay and

The two parts of "Flame Atomic Absorption Spectrometry" also involve the determination of the amount of silver in zinc concentrate. This document is equivalent to ISO 15247.2015.This document

Compared with the other two silver measurement methods in this series of standards, the method used adopts different sample dissolution processing methods.

GB/T 8151 consists of 26 parts.

---Part 1.Determination of zinc amount by precipitation separation Na₂EDTA titration method and extraction separation Na₂EDTA titration method;

---Part 2.Determination of sulfur content by combustion neutralization titration method;

---Part 3.Determination of iron content by Na₂EDTA titration method;

- Part 4.Determination of silica content by molybdenum blue spectrophotometry;
- Part 5.Determination of lead content by flame atomic absorption spectrometry;
- Part 6.Determination of copper content by flame atomic absorption spectrometry;
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