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

GB 2468-1981

Replacing GB/T 2468.1-1996; GB/T 2468.3-1996

**Pyrites and concentrate -- Determination of zinc content --
Flame atomic absorption spectrometric and
spectrophotometric methods
(English Translation)**

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- 5.1 Flame Atomic Absorption Spectrometry

Foreword

This standard replaces GB/T 2468.1-1996 "Pyrites and concentrate - Determination of zinc content - Part 1. Flame atomic absorption spectrometry Law "and GB/T 2468.3-1996" Pyrites and concentrate - Determination of zinc content - Part 3. PAN spectrophotometric method ", these two Standard merged into a standard, divided into two methods.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard is under the jurisdiction of Chemical Industry Standardization Technical Committee chemical mine.

This standard was drafted. even in the blue sea and Design Institute.

1 Scope

This standard specifies the flame atomic spectrophotometry Pyrites and concentrate zinc content absorption spectrometry and spectrophotometry.

This standard is applicable to flame atomic absorption spectrometry from 0.01% to 1% in Pyrites and concentrate - Determination of zinc content products, spectrophotometric Law applies to the product concentrate zinc content of 0.01% to 0.3% Pyrites and.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6003.1 woven wire mesh test sieve (GB/T 6003.1-1997, eqv ISO 3310-1:1990) GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-1992, neq ISO 3696. 1987) GB/T 9721 Chemicals General molecular absorption spectrophotometry (UV and visible part) GB/T 9723 Chemicals flame atomic absorption spectrometry General

3 Sample

The sample passes through 150 μ m test sieve (GB/T 6003.1), at 100 °C ~ 105 °C drying to constant weight, placed in a desiccator, cooled to Room temperature.

4 General Provisions

The water of this standard shall comply with GB/T 6682 water in three specifications; reagents listed Unless otherwise specified, refer to analytical reagent.

5.1.1 Method summary

Samples with hydrochloric acid - nitric acid is dissolved in dilute hydrochloric acid medium, using air - acetylene flame atomic absorption spectrometer at a wavelength of 213.9nm the absorbance was measured to obtain the working curve method zinc content.

5.1.2 Reagents and solutions

5.1.2.1

hydrochloric acid.

5.1.2.2

hydrochloric acid solution. 1 + 1.

5.1.2.3

nitrate.

5.1.2.4

Zinc standard solution. 1.00mg/mL. Weigh 1.0000g high purity metal zinc (or burning 1h at 1000 °C oxidation base Zinc 1.2447g) in 250mL beaker, was added 40mL of hydrochloric acid solution, covered with a watch glass and heated to dissolve completely, cooled and transferred to 1000mL volumetric flask, dilute to the mark, shake. This solution zinc (Zn) the amount of 1.00mg/mL.

5.1.2.5

Zinc standard solution. 100 μ g/mL. Absorb 50.0mL zinc standard solution (5.1.2.4) in 500mL volumetric flask, dilute with water Release to the mark. This solution zinc (Zn) the amount of 100 μ g/mL.