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

**GB 2467-1981**

Replacing GB/T 2467.1-1996; GB/T 2467.3-1996

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**Pyrites and concentrate -- Determination of lead content --  
Flame atomic absorption spectrometric and EDTA volumetric  
methods**

**(English Translation)**

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## Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 Sample
- 4 General Provisions
- 5 Analysis
- 5.1 Flame Atomic Absorption Spectrometry

### Foreword

This standard replaces GB/T 2467.1-1996 "Pyrites and concentrate - Determination of lead content - Part 1. Flame atomic absorption spectrometry Law "and GB/T 2467.3-1996" Pyrites and concentrate - Determination of lead content - Part 3. EDTA volumetric method ", these two standard it merged into a quasi-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 absorption spectrometric and EDTA volumetric method Pyrites and concentrate of lead content.

This standard flame atomic absorption spectrometry applied to the lead content of 0.01% to 1% Pyrites and concentrate products, EDTA content Method for the determination of Pyrites and concentrate products lead content greater than 0.1%.

### 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.

Preparation of GB/T 601 chemical reagent standard titration solution 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 9723 Chemicals flame atomic absorption spectrometry General

### 3 Sample

The sample passes through 150 $\mu$ 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 283.3nm the absorbance was measured to determine the lead content of working curve method.

#### 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

Lead standard solution. 1.00mg/mL. Weigh 1.0000g purity metal lead in 250mL beaker, add 40mL of nitric acid Solution (1 + 1), cover the surface of the pan, heat to dissolve completely cooled and transferred to 1000mL volumetric flask, dilute to the mark, shake. This solution Liquid lead (Pb) amount of 1.00mg/mL.

##### 5.1.2.5

Lead standard solution. 200 $\mu$ g/mL. Draw 100.0mL lead standard solution (5.1.2.4) in 500mL flask with water Dilute to the mark. This solution is lead (Pb) the amount of 200 $\mu$ g/mL.