

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

SN/T 0481.8-2010

**Methods for inspection of bauxite for export. Part 8:
Determination of sulfur content. High frequency
combustion-infrared absorption method**

出口矾土检验方法 第8部分：高频燃烧-红外吸收法测定硫含量

(English Translation)

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Foreword

SN/T 0481 "Test Method export bauxite" series of standards are divided into the following sections.

- Part 1. mandelic acid with concealed titanium aluminum oxide content of EDTA;
- Part 2. molybdenum blue photometric method for determination of silicon dioxide;
- Part 3. sulfosalicylic acid spectrophotometric determination of the amount of ferric oxide;
- Part 4. Direct determination with EDTA calcium oxide and magnesium oxide content;
- Part 5. combustion - neutralization method for the determination of sulfur content;
- Part 6. Rapid Determination of bulk density bauxite;
- Part 7. Determination of ferric oxide, titanium oxide, silicon dioxide, calcium oxide spectrometry inductively coupled plasma atomic emission, MgO content;
- Part 8. High Frequency Burning - Determination of sulfur content infrared absorption method;
- Part 9. 1,10 phenanthroline photometric method for the determination of free iron.

This section SN/T Section 80481 of.

This section drafted in accordance with the rules of GB/T 1.1-2009, SN/T 1831-2006 given.

Please note that some of the content of this section may involve patents. This part of the release mechanism does not assume the responsibility to identify these patents.

This section proposed and managed by the National Certification and Accreditation Administration Committee.

1 Scope

SN/T 0481 provisions of this part of the export bauxite total sulfur content in the high-frequency combustion - infrared absorption spectrometry.

This section applies to the determination of export bauxite total sulfur content in measuring range. 0.007% to 0.10%.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 2009 bauxite bulk sampling and sample preparation method JJG395 Dingtang fixed sulfur analyzer

3 Method summary

After the sample pre-burning, high-frequency induction furnace in an oxygen stream of heated combustion generates sulfur dioxide from the oxygen contained in the infrared analyzer to measure Room to absorb specific wavelengths of infrared energy absorption signal is proportional to its concentration. According to the change in energy receiving detector, compared to a standard Substance Determination of sulfur content.

4 Reagents and materials

Unless otherwise indicated in the analysis using only recognized as analytical grade reagents and distilled water or equivalent purity.

4.1

Magnesium perchlorate. water, particle size of 0.7mm ~ 1.2mm.

4.2

Alkali Asbestos. granular.

4.3

tungsten particles. a sulfur content of less than 0.0005%, a particle size of 0.2mm ~ 1.2mm.

4.4

tin particles. a sulfur content of less than 0.0005%, a particle size of 0.2mm ~ 1.2mm.

4.5

tin capsules. diameter 6mm, height 18mm, the volume of 0.4mL.

4.6

iron flux. sulfur content of less than 0.0005%, a particle size of 0.8mm ~ 1.68mm.

4.7

Potassium. fines content of greater than 99.9%, dried at 105 °C 2h, cool in a desiccator.

4.8

sulfur standard solution (0.80mg/mL). Weigh potassium sulphate (4.7) 2.175g (accurate to 0.0001g), dissolved in distilled water and transferred to 500mL volumetric flask, dilute to the mark.

4.9

Oxygen. than 99.5% purity.

4.10

Power gas. nitrogen, purity greater than 99.5%.

5 Instruments

5.1

high-frequency combustion - infrared carbon and sulfur analyzer. JJG395 of compliance.