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YS

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

YS/T 575.25-2014

**Methods for chemical analysis of bauxite. Part 25:
Determination of sulfur content Coulometric titration method**

铝土矿石化学分析方法 第25部分：硫含量的测定库仑滴定法

(English Translation)

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Foreword

YS/T 575 "Methods for chemical analysis of bauxite -" Part 25.

--- Part 1. aluminum oxide content - EDTA titration;

--- Part 2. silica content - Gravimetric - molybdenum blue spectrophotometry;

--- Part 3. Determination of silica content molybdenum blue spectrophotometry;

--- Part 4. iron oxide content - Potassium dichromate titration;

--- Part 5. Determination of iron oxide content phenanthroline spectrophotometry;

--- Part 6. Determination of titanium dioxide content of the two methane antipyrine spectrophotometry morpholino;

--- Part 7. Determination of calcium oxide content by flame atomic absorption spectrometry;

--- Part 8. magnesium oxide content - Flame atomic absorption spectrometry;

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- Part 21. Determination of organic carbon titration;
- Part 22. Analysis of samples moisture intrudes content - Gravimetric method;
- Part 23. Determination of Elements in X-ray fluorescence spectrometry;
- Part 24. Determination of carbon and sulfur content infrared absorption method;
- Part 25. Determination of sulfur content coulometric titration.

This section YS/T Part 25 575.

This section drafted in accordance with GB/T 1.1-2009 given rules.

The non-ferrous metal part by the National Standardization Technical Committee (SAC/TC243) centralized.

This section is responsible for drafting units. China Chalco Henan Branch.

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1 Scope

YS/T 575 This part provides for determination of sulfur content in bauxite.

This section applies to the determination of sulfur content in bauxite, measuring range $\geq 0.05\%$.

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.

YS/T 575.20 Methods for chemical analysis of bauxite Part 20. pre-dried sample preparation

3 PRINCIPLE OF THE METHOD

Bauxite samples at 1200 °C and high temperature catalyst, and dried in purified air stream burning and decomposition, bauxite stone Sulfur generates sulfur oxide (including a small amount of sulfur dioxide and sulfur trioxide) by potassium iodide - bromide absorption solution, electrolytic potassium iodide - bromide Iodine and bromine solution of potassium produced was titrated, calculated according to the sulfur content of bauxite in the electrolysis of electricity consumed.

4 Reagents

4.1

vanadium pentoxide. AR, before use after 105 °C ~ 110 °C drying spare.

4.2

tin particles. AR.

4.3

color gel. Industrial.

4.4

Electrolyte. Weigh iodide, bromide respective 5.0g, was dissolved in 250mL ~ 300mL of water and 10mL of glacial acetic acid was added in the solution.

4.5

combustion boat. length above 70mm ~ 77mm, bisque or corundum products, temperature 1200 °C. Before using burning at 1000 °C high temperature furnace Burning more than 2h.

5 Instruments

Coulomb sulfur analyzer.

6 Sample

The specimen shall conform YS/T 575.20 requirements.