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SN

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

SN/T 2638.4-2013

**Determination of sulfur content in manganese ores for import
and export. High frequency combustion with infrared
absorption method
(English Translation)**

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Foreword

SN/T 2638 is divided into four parts.

--- Part 1. Determination of the wavelength of the import and export of manganese ores, iron, silicon, aluminum, calcium, magnesium, titanium, potassium and phosphorus elemental dispersive X-ray fluorescence Optical spectroscopy;

--- Part 2. Import-export manganese ore of iron, measured inductance aluminum, magnesium, calcium, titanium, phosphorus, nickel, copper, zinc coupled plasma atomic hair Emission spectrometry;

--- Part 3. Determination of manganese ore and export high-temperature sulfur content of combustion infrared absorption method;

--- Part 4. Determination of manganese ore and export of sulfur content in the high-frequency induction furnace combustion infrared absorption method.

This section SN/T 2638 Part 4.

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

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

This standard was drafted. People's Republic of China Liaoning Entry-Exit Inspection and Quarantine Bureau.

1 Scope

This standard specifies the use of a high frequency induction furnace combustion infrared absorption method for determination of manganese ore sulfur content.

This standard applies to the determination of manganese ore sulfur content. Measuring

range. w (S). 0.0010% ~ 0.50%.

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.

Laboratory use specifications and test methods GB/T 6682 Analysis GB/T 14949.8 wet chemical analysis of manganese ore deposit measuring water

3 Method summary

The sample is heated in an induction furnace in an oxygen stream of combustion, the oxygen produced by the sulfur dioxide contained in the measuring chamber to the infrared analyzer dioxide Sulfur absorption of a specific wavelength of infrared energy absorbed is proportional to its concentration can, according to the detector to accept the change in energy can be measured sulfur content.

4 Reagents

Unless otherwise stated, all reagents were of analytical grade, water as a secondary water GB/T 6682 regulations.

4.1

anhydrous magnesium perchlorate. particle size 0.7mm ~ 1.2mm.

4.2

Alkali Asbestos. granular.

4.3

tungsten tin flux. pure tungsten (sulfur content of less than 0.0005%) and tin powder (sulfur content of less than 0.0005%), 6-4 mixing.

Iron 4.4 Flux. a sulfur content of less than 0.0005%.

4.5

tin capsules. capacity of about 0.4mL.

4.6

high-purity potassium. content greater than 99.9%, and dried before use at 105 °C 2h, placed in a desiccator to cool.

4.7

Manganese ore reference materials. certified reference materials.

4.8

Oxygen. than 99.5% purity.

4.9

Power gas. nitrogen, argon or compressed air, which contaminants (oil and water) content of less than 0.5%.

5 Instruments

5.1

frequency induction infrared carbon and sulfur analyzer.

5.2

porcelain crucible. a precise assembly dimensions, adapted to support a column so that it can be raised to the exact height of the induction coil. And at 1200 °C Burning oxygen-enriched atmosphere at 2h, stored in a desiccator.

5.3

Analysis of balance. a sense of the amount of 0.1mg.