

SN

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

SN/T 2638.3-2012

**Determination of sulfur content in manganese ores for import
and export. High temperature combustion infrared absorption
method**

(English Translation)

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Table of Contents

Foreword...	3
1 Scope...	4
2 Normative references...	4
3 Method summary...	4
4 Reagent...	4
5 Instruments and equipment...	5
6 Sampling and sample preparation...	5
7 Analytical procedures...	5
8 Precision...	6

Foreword

The SN/T 2638 series of standards are divided into 3 parts:

- Determination of manganese, iron, silicon, aluminum, calcium, magnesium, titanium, potassium and phosphorus in manganese ores for import and export - Wavelength dispersive X-ray fluorescence spectrometric method
- Determination of iron, aluminum, magnesium, calcium, titanium, phosphorus, nickel, copper, zinc in manganese ores for import and export - Inductively coupled plasma atomic emission spectrometry;
- Determination of sulfur content in manganese ores for import and export - High temperature combustion infrared absorption method.

This part is part 3 of SN/T 2638.

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

This part was proposed by and shall be under the jurisdiction of the National Certification and Accreditation Administration Committee.

Drafting organization of this part: Tianjin Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China.

1 Scope

This part of SN/T 2638 specifies the method for determining the sulfur content in manganese ore by combustion infrared absorption in a high-temperature tubular resistance furnace.

This part is applicable to the determination of sulfur content in manganese ore; the determination range is 0.007% ~ 0.300%.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this standard.

GB/T 2011 Method of sampling and sample preparation of manganese ores in bulk

3 Method summary

The sample is heated and burned in the oxygen flow of the high-temperature tubular resistance furnace. The sulfur is converted into sulfur dioxide and carried by oxygen to the measuring chamber of the infrared detector, to detect the infrared absorption energy of sulfur dioxide at a specific wavelength. The absorption energy is proportional to its concentration. The sulfur content can be measured by the change in energy received by the detection device.

4 Reagent

Unless otherwise specified, all reagents used are of analytical pure.

4.1 Magnesium perchlorate: Anhydrous, with a particle size of 0.7 mm to 1.2 mm.

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