

ICS 73.060.99
CCS D40

SN

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

SN/T 2763.2-2012

**Chemical analysis of laterite nickel ore. Part 2: Determination of
nickel and cobalt content. Flame atomic absorption
spectrometry
(English Translation)**

Issued on: May 7, 2012

Implemented on: November 16, 2012

Issued by: General Administration of Customs

Table of Contents

Foreword
1 Scope
2 Normative references
4 Reagents

Foreword

SN/T 2763 "Methods for chemical analysis of nickel laterite ore" is divided into three parts.

--- Part 1. X-ray fluorescence spectrometry;

--- Part 2. nickel, cobalt content - Flame atomic absorption spectrometry;

--- Part 3. Determination of total iron content of titanium oxide reduction.

This section SN/T 2763 "Methods for chemical analysis of nickel laterite ore," Part 2.

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

The section under the jurisdiction of the State Certification and Accreditation Administration Committee.

This section is drafted. Tianjin People's Republic of China Exit Inspection and Quarantine.

1 Scope

SN/T 2763 This section specifies the method of flame atomic absorption spectrometry laterite nickel ore nickel, cobalt content.

This section applies to the determination of nickel laterite nickel, cobalt content.

Measurement range (mass fraction). 0.1% to 3% of nickel, 0.01% cobalt ~ 0.2%.

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 6379.2 measurement methods and results of Accuracy (trueness and precision) Part 2 is repeated to determine the standard measurement method and reproducibility of the basic method (ISO 5725-2) Laboratory use specifications and test methods GB/T 6682 Analysis GB/T 7728 Methods for chemical analysis of metallurgical products by Flame

Atomic Absorption Spectrometry General GB/T 12805 Laboratory glassware Burettes GB/T 12806 Laboratory glassware single marking flask GB/T 12808 Laboratory glassware single marking pipette Principle 3 Sample with hydrofluoric acid, aqua regia, perchloric acid decomposition with hydrochloric acid dissolved salts in hydrochloric acid medium, using air - acetylene flame atomic absorption on a take-spectrometer, nickel at a wavelength of 232.0nm or 352.5nm at cobalt measured at a wavelength at 240.7nm.

4 Reagents

Unless otherwise indicated, the reagents used were of analytical grade reagent water to comply with two water GB/T 6682 regulations.

4.1

hydrochloric acid ($\rho = 1.19\text{g/mL}$).

4.2

nitric acid ($\rho = 1.42\text{g/mL}$).

4.3

Hydrofluoric acid ($\rho = 1.15\text{g/mL}$).

4.4

perchloric acid ($\rho = 1.67\text{g/mL}$).

4.5

sulfate ($\rho = 1.84\text{g/mL}$).

4.6

aqua regia. hydrochloric acid (4.1) nitrate (4.2) = (31), using now.