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SN

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

SN 0065.3-1992

Replacing SN 0065.3-1992

**Method for determination of europium-rich, yttrium-rich,
Sm-Eu-Gd oxides for import and export. Part 3: Determination
of total rare earth oxides content**

出口富铕、富钇、钐铕钇氧化物测定方法 重量法测定稀土氧化物总量

(English Translation)

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Table of Contents

Foreword
1 Scope
2 Normative references
3 Method summary
4 Reagents
5 Instruments

Foreword

SN/T 0065 "Importers rich europium, yttrium-rich, samarium, europium, gadolinium oxide measurement method" standard series is divided into three parts.

--- Part 1. Determination of moisture

--- Part 2. Determination of loss on ignition

--- Part 3. Determination of total rare earth oxides this section SN/T Section 30065 of.

This Part replaces SN 0065.3-1992 "Importers rich europium, yttrium-rich, oxygen measuring samarium rare earth europium, gadolinium oxide measurement method --- gravimetric method the total amount of compounds. " ". Chemical analysis methods - Part 4 standard writing rules" provisions of this section in accordance with SN 0065.3-1992 GB/T 20001.4 be revised.

This section compared with SN 0065.3-1992 main changes are as follows.

--- Add a description of the preamble;

--- Delete the obsolete GB 4471 "between Chemical test method precision laboratory tests to determine the repeatability and reproducibility";

--- Given precision repeatability limit, the reproducibility of the method has been covered limit measurement range, delete the original standard "8.2 critical difference calculation" Terms.

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

1 Scope

SN/T 0065 provisions of this part of the determination of the total import and export rich rare earth oxides of europium, samarium and europium yttrium-rich gadolinium oxide.

This section applies to the import and export rich europium, Determination of total rare earth oxides of yttrium and rich europium, gadolinium, samarium oxide. Measuring range. 85% to 99%.

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. Determine the standard measurement method to repeat of the basic methods of reproduction

3 Method summary

Sample nitric acid - perchloric acid was dissolved and dehydrated, and insolubles were removed by filtration silicon. The filtrate was precipitated with ammonia rare, adding gelatin Cohesion rare, rare earth and calcium, magnesium, titanium separation. RE oxalic acid precipitation, and further separation of iron, aluminum and other non-rare earth impurities. The precipitate was filtered, Ash and burning, rare earth oxides in the form of weighing.

4 Reagents

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

4.1

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

Nitrate 4.2 ($\rho=1.42\text{g/mL}$).

4.3

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

Hydrochloride 4.4 (volume fraction 149).

4.5

Hydrogen peroxide ($\rho=1.10\text{g/mL}$).

4.6

gelatin (10g/L). Weigh 1g gelatin dissolved in 100mL hot water preparation today.

4.7

Ammonia (rho0.9g/mL).

4.8

aqueous ammonia (volume fraction 11).

4.9

ammonia - ammonium chloride bath. Weigh 2g of ammonium chloride dissolved in 90mL water, 10mL plus ammonia (see 4.7), pH>=9.2.

4.10

oxalic acid solution (90g/L). Weigh 90g of oxalic acid dissolved in 1000mL water.

4.11

oxalic acid lotion (20g/L). Weigh 20g of oxalic acid dissolved in 1000mL water.

4.12

cresol red indicator (1g/L). Weigh cresol red 0.1g, plus ethanol 20mL dissolved, diluted with water to 100mL, and mix.

5 Instruments

5.1

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