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

GB/T 26305-2010

**The method for chemical of nickel oxide -- Determination of
nickel content -- Electrolytic deposition method**

氧化镍化学分析方法 镍量的测定 电沉积法

(English Translation)

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Foreword

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

This revised standard adopts ISO 12169:1996 "Determination of nickel content of nickel oxide electrolytic deposition method." And ISO 12169:1996 Phase Than the standard main changes are as follows.

--- Reference standard adopts the international standard ISO 3696 corresponding to GB/T 6682 "Test Methods for laboratory use - Specification and Analysis";

--- Reagent ethanol instead of methanol;

--- In 4.8,4.9, and with "excellent level of pure" reagent instead of "reagent grade" reagents;

--- 5.1 in the "semi-micro analytical balance, a sense of the amount of 0.01mg", according to the actual operational requirements to "analytical balance, a sense of volume 0.1mg";

--- 5.3 in "a spiral coil-shaped anode" to "anode is a helical coil or mesh";

--- In 7.1.1, the sample weight "accurate to 0.001g" to "accurate to 0.1mg", with a "beaker" instead of "Pyrex Beaker";

--- 7.1.4 with the "speed quantitative filter paper" instead of "40 this standard and ISO 12169:1996 correspondence between the provisions of Appendix D.

This standard by the national non-ferrous metals Standardization Technical Committee (SAC/TC243) centralized.

1 Scope

This standard specifies the method for determination of electrodeposited nickel oxide and nickel oxide partial reduction in nickel content.

This standard applies to nickel oxide and nickel oxide partial reduction in the amount of

nickel electrodeposition measurement method, measurement range. 70% to 95% (by mass fraction).

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 6682 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD)

3 PRINCIPLE OF THE METHOD

Sample was dissolved in a solution of nitric acid and potassium chlorate, sulfuric acid nitric acid to remove smoke, coke residue dissolved potassium melt decomposition. In Ammonia the electrolytic deposition of nickel, weighing sediment quality. Quality measurement of residual ammonia electrolyte of nickel by atomic absorption spectrometry coupled with mass deposition of nickel it is the actual mass of nickel. Fixed deposits with moisture measurement sample nickel net mass.

4 Reagents

Unless otherwise specified, the reagents were of analytical grade, water GB/T 6682 as specified in Class 2 water.

4.1

hydrochloride, $\rho_{20} = 1.18\text{g/mL}$, diluted to (11).

4.2

sulfate, $\rho_{20} = 1.84\text{g/mL}$, diluted to (11).

Nitric acid 4.3, $\rho = 1.41\text{g/mL}$, diluted to (11).

4.4

hydrofluoric acid, $\rho_{20} = 1.13\text{g/mL}$, diluted to (11).

Warning. hydrofluoric acid on the skin and mucous membranes have a strong irritant, corrosive, can cause severe burns and difficult to cure. Once the skin Contact with hydrofluoric acid, washed thoroughly cleaned after medical treatment.

4.5

ammonia, $\rho_{20} = 0.89\text{g/mL}$.

4.6

potassium chlorate (KClO_3), pure class distinctions.

Warning. potassium chlorate is a strong oxidant, after mixing with certain substances, an explosion will occur.

4.7

potassium pyrosulfate ($\text{K}_2\text{S}_2\text{O}_7$), pure class distinctions.

4.8

dimethylglyoxime solution. 1g Diacetyldioxime dissolved in 100mL of ethanol.

5 Instruments

5.1

Analytical balance, a sense of the amount of 0.1mg.

5.2

electrolytic deposition apparatus (see FIG. 1).