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YS

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

YS/T 561-2009

Replacing YS/T 561-2006

**Methods for chemical analysis of precious metals alloys.
Platinum-rhodium alloys. Determination of rhodium content.
Hexaammine cobalt nitrate gravimetry**

贵金属合金化学分析方法铂铑合金中铑量的测定硝酸六氨合钴重量法

(English Translation)

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Foreword

Instead of the standard YS/T 561-2006 "platinum-rhodium alloys - Determination of the amount of rhodium." Compared with this standard YS/T 561-2006, the main changes are as follows.

--- Standard name from "platinum-rhodium alloy chemical analysis method for determining the amount of rhodium" to "precious metal alloys - Determination of platinum and rhodium combined Determination of the amount of gold rhodium nitrate hexamine cobalt weight method";

--- Measuring range from 5% to 70% of the revised 5% to 95%;

--- According to GB/T 20001.4-2001 format requirements rewritten.

Appendix A of this standard is an informative annex.

This standard by the National Standardization Technical Committee of non-ferrous metals and centralized.

This standard was drafted. Your research Platinum Limited.

1 Scope

This standard specifies the method for determination of platinum-rhodium alloy rhodium content.

This standard applies to the determination of platinum and rhodium alloy rhodium content. Measuring range. 5% to 95%.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

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3 PRINCIPLE OF THE METHOD

Sample a glass tube sealed chloride dissolved in platinum, rhodium chloride complex acidic solution with nitric acid cobalt hexamine rhodium was double salt precipitation.

Determination of the amount of rhodium gravimetric method.

4 Reagents

Unless otherwise indicated, the reagents used in this standard, utensils, etc. should be consistent with the provisions of YS/T 371's.

Nitrate 4.1 (rho1.42g/L).

4.2

hydrochloride (rho1.19g/L).

4.3

Hydrogen peroxide (30%).

4.4

sodium nitrite.

4.5

hexamine cobalt nitrate saturated solution. Weigh 17g crystallized hexamine cobalt nitrate (preparation see Appendix A), add 300mL water dissolved heating Solution, dried fast filter paper, diluted to 1000mL.

4.6

hexamine cobalt nitrate lotion. 0.5g/L.

4.7

ethanol.

4.8

ether.

5 Device

A sense of balance amount of 0.01mg.

6 Sample

Erase the oil sample with acetone, and then processed into chips, washed, dried, and mix.

7.1 Sample

Weigh a certain amount of the sample, which makes the amount of rhodium in 10mg ~ 50mg, accurate to 0.00001g.