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YS

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

YS/T 563-2009

Replacing YS/T 563-2006

Methods for chemical analysis of precious metals alloys.

**Platinum-palladium-rhodium alloys. Determination of palladium and rhodium
content. Diacetyldioxime gravimetry, tin (?) chloride spectrophotometry**

贵金属合金化学分析方法铂钯铑合金中钯量、铑量的测定丁二肟重量法、氯化亚
锡分光光度法

(English Translation)

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Foreword

Instead of the standard YS/T 563-2006 "Determination of platinum, palladium, rhodium alloys - Determination of the amount of palladium and rhodium." Compared with this standard YS/T 563-2006, the main changes are as follows.

--- Standard name by the YS/T 563-2006 "Determination of platinum, palladium, rhodium alloys - Determination of the amount of palladium and rhodium content" to "precious metals together Methods for chemical analysis of gold alloys of platinum, palladium, rhodium palladium, rhodium determining the amount of dimethylglyoxime gravimetric method, stannous spectrophotometry ";

--- Measurement range from the original Pd4%, Rh3.5% revised to. Pd3% ~ 8%; Rh3% ~ 5%.

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 platinum palladium, rhodium and palladium alloys, determination of rhodium content.

This standard applies to PtPdRh alloy of palladium, rhodium content was measured. Measuring range. Pd3% ~ 8%, Rh3% ~ 5%.

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.

371 precious metal alloys - General rules and regulations YS/T

3 PRINCIPLE OF THE METHOD

Samples with hydrochloric acid - nitric acid mixture dissolved. In sodium bromate, sodium bicarbonate (pH8) media manipulation, palladium, rhodium and platinum was precipitated hydrated oxide points from. In dilute hydrochloric acid medium with dimethylglyoxime precipitate palladium, content was measured by weight method. With stannous chloride Determination of the amount of rhodium.

4 Reagents

Unless otherwise indicated, the reagents used in this standard and vessels shall comply with the provisions of YS/T 371's.

4.1

hydrochloride (rho1.19g/L).

4.2

hydrochloric acid (1 + 99).

Nitrate 4.3 (rho1.42g/L).

4.4

Hydrogen peroxide (30%).

4.5

Sodium bromate solution (100g/L).

4.6

sodium bicarbonate solution (50g/L).

4.7

sodium chloride solution (100g/L).

4.8

sodium chloride solution (1 + 9).

4.9

dimethylglyoxime in ethanol (10g/L), filtered to use.

4.10

stannous chloride solution (250g/L). Weigh 25g of stannous chloride dissolved in 17mL hydrochloric acid (4.1), diluted with water to 100mL, Stored in a brown bottle.

4.11

rhodium standard solution. Weigh 0.10g rhodium metal, accurate to 0.0001g (rhodium content should be not less than 99.99%), according to Predetermined YS/T 371 is dissolved. After opening the tube, the solution was transferred to 100mL volumetric flask, add 10mL of hydrochloric acid (4.1), diluted with water to the mark degree. Mix well. Each mL of this standard solution containing rhodium 1.000mg.

5 Instruments

UV-visible spectrophotometer.

6 Sample

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