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

GB/T 21198.2-2007

Determination of precious metals in precious metals jewellery alloys -- Method using ICP spectrometry -- Part 2: Platinum jewellery alloys -- Determination of platinum -- Method using the intensity ratios of all minor constituents with reference to platinum

贵金属合金首饰中贵金属含量的测定 ICP光谱法 第2部分：铂合金首饰 铂含量的测定 采用所有微量元素与铂强度比值法

(English Translation)

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Foreword

GB/T 21198 "precious metal jewelry alloys precious metal content using ICP spectrometry" is divided into six parts.

--- Part 1. Determination of platinum content platinum jewelry alloys using yttrium as internal standard;

--- Part 2. Determination of platinum content platinum alloy jewelry using platinum all trace elements and the intensity ratio method;

--- Part 3. Determination of palladium jewelry alloys using palladium content of yttrium as internal standard;

--- Part 4. Determination of 999 per mille precious metal jewelry alloys precious metal content of subtraction;

Part --- Article 5. 999 per mille silver jewelry alloys - Determination of silver content difference of subtraction;

--- Part 6. Subtraction.

This section GB/T 21198 Part 2.

The section referring to ISO/DIS14138-2:2001 "platinum alloy jewelry platinum content using ICP spectrometry (using all trace elements Su platinum intensity ratio method), "written in the following main technical differences and ISO/DIS14138-2.

--- The Normative references cited in the international standards to China's national standard GB 11887;

--- According to our standard requirements for the preparation of reagents specifications made provisions;

--- Due to the current international and domestic no standard for sample preparation, thus deleting the original text of Chapter 7 and Chapter 10 b).

For ease of use, this section also made the following editorial changes.

--- "This International Standard" be replaced by "this section";

"," --- With a decimal point instead of a comma as the decimal point, "";

--- With "mL" instead of "cm³";

--- Delete international standards preface and appendix C (comparison test results).

Appendix A of this section is normative appendix, Appendix B is an informative annex.

This part is proposed by the China National Light Industry Council.

This part of the National Standardization Technical Committee jewelry (SAC/TC256) centralized.

This section drafted by. National Jewelry Quality Supervision and Inspection Center.

1 Scope

This section GB/T 21198 specifies the application of all the trace elements using ICP spectrometer and the intensity ratio of platinum jewelry alloys - Determination of platinum the total amount of impurity elements to determine the platinum content approach.

This section applies to the purity of platinum jewelry range specified in GB 11887.

Note 1: The platinum alloy may contain palladium, copper, gold, iridium, ruthenium, rhodium, cobalt, gallium, chromium, indium, nickel, iron, zinc, cadmium, magnesium, tin, aluminum, manganese, titanium, lead and silver. If each of the sample Element content exceeds the values in Table 1 listed, this does not apply.

Note 2: This method assumes that the sample contains the content of all the metal and non-metallic elements other than the elements listed in Table 1 does not exceed 0.1%. This assumption needs to be confirmed.

Table 1 maximum concentration of alloying elements and impurities in per mille represent

Element upper limit elements Pd 180 Ni 60 Pt 990 Fe 5 Cu 180 Zn 5 Au 60 Cd 5 Ir 60 Mg 5 Ru 60 Sn 5 Rh 60 Al 5 Co 60 Mn 5 Ga 60 Ti 5 Cr 60 Pb 5 in 60 Ag 4

2 Normative references

The following documents contain provisions which, through reference GB/T 21198 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB 11887 jewelry precious metal purity and designation of (GB 11887-2002, ISO

9202:1991, NEQ)

3 PRINCIPLE OF THE METHOD

The sample was dissolved in aqua regia. Simultaneous Determination of ICP spectrometer sample emission intensity of all the elements, with each element in the calculation of platinum