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

GB/T 7739.15-2025

**Methods for chemical analysis of gold concentrates - Part 15:
Determination of platinum group element contents**

金精矿化学分析方法 第15部分：铂族元素量的测定

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Standardization Administration of the PRC**

Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
1.Lead-gold enrichment-inductively coupled plasma mass spectrometry	1
12 Reference	13

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 15 of GB/T 7739, "Chemical Analysis Methods for Gold Concentrates". GB/T 7739 has already published the following parts.

- 1.Determination of Gold and Silver Content;
- 2.Determination of Silver Content by Flame Atomic Absorption Spectrometry;
- 3.Determination of Arsenic Content;
- 4.Determination of Copper Content;
- 5.Determination of Lead Content;
- 6.Determination of Zinc Content;
- 7.Determination of Iron Content;
- 8.Determination of Sulfur Content;
- 9.Determination of Carbon Content;
- 10.Determination of Antimony Content;
- 12.Determination of Arsenic, Mercury, Cadmium, Lead and Bismuth by Atomic Fluorescence Spectrometry;
- 13.Determination of Lead, Zinc, Bismuth, Cadmium, Chromium, Arsenic and Mercury by Inductively Coupled Plasma Atomic Emission Spectrometry;

1 Scope

GB/T 7739.15-2025 is the Chinese national standard covering finding the platinum group

metals that ride along in a gold concentrate - the fire assay collection, the dissolution of the bead, and the ICP determination of platinum, palladium and the rest, which decides whether they are paid for or given away. Part 15 of the series, first edition. In force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026.

This document describes the methods for determining the amounts of platinum group elements platinum, palladium, rhodium, iridium, and ruthenium in gold concentrate. This document applies to the determination of platinum group elements (platinum, palladium, rhodium, iridium, and ruthenium) in gold concentrate. Method

1. Lead-based gold enrichment - inductively coupled plasma atomic absorption spectrometry (ICP-AES). Mass spectrometry determination range. Platinum

10.00 ng/g ~ 10000.00 ng/g, Palladium

15.00 ng/g ~ 22000.00 ng/g; Method

2. Nickel matte assay Enrichment-inductively coupled plasma mass spectrometry (ICP-MS) determination range. Platinum

10.00 ng/g ~ 10000.00 ng/g, Palladium

10.00 ng/g ~ 10000.00 ng/g, Rhodium

10.00 ng/g ~ 10000.00 ng/g, Iridium

10.00 ng/g ~ 10000.00 ng/g, Ruthenium

10.00 ng/g ~ 10000.00ng/g.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 17433 Basic Terminology for Chemical Analysis of Metallurgical Products

3 Terms and Definitions

The terms and definitions defined in GB/T 17433 apply to this document.