

ICS 77.100
CCS H 11



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

GB/T 4702.2-2025

Replacing GB/T 4702.2-2008

**Chromium metal - Determination of silicon content - Perchloric
acid gravimetric method and molybdenum blue
spectrophotometric method**

金属铬 硅含量的测定 高氯酸脱水重量法和钼蓝分光光度法

Issued on: October 31, 2025

Implemented on: May 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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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 2 of GB/T 4702. GB/T 4702 has been published in the following 16 parts.

---Determination of Chromium Content by Ferrous Ammonium Sulfate Titration Method (GB/T 4702.1);

---Determination of Chromium and Silicon Content by Perchloric Acid Dehydration Gravimetric Method and Molybdenum Blue Spectrophotometric Method (GB/T 4702.2);

---Determination of Chromium and Phosphorus Content. Bismuth-phosphorus-molybdenum blue spectrophotometric method (GB/T 4702.3);

---Determination of chromium and ferrochrome content by disodium ethylenediaminetetraacetate titration and flame atomic absorption spectrometry (GB/T 4702.4);

---Determination of Chromium and Aluminum Content by Disodium Ethylenediaminetetraacetate Titration and Flame Atomic Absorption Spectrometry (GB/T 4702.5);

---Determination of the content of metallic chromium, ferrochrome, aluminum, silicon and copper by inductively coupled plasma atomic emission spectrometry (GB/T 4702.6);

---Determination of Chromium and Nitrogen Content by Distillation Separation - Nessler Reagent Spectrophotometry (GB/T 4702.7);

---Chemical Analysis Methods for Chromium Metals. Determination of Arsenic Content by Distillation-Molybdenum Blue Spectrophotometry (GB/T 4702.8);

---Chemical Analysis Methods for Chromium Metals. Determination of Antimony Content by Crystal Violet Spectrophotometry (GB/T 4702.9);

---Chemical Analysis Methods for Chromium Metals. Determination of Copper Content by Copper Reagent Spectrophotometry (GB/T 4702.10);

---Chemical Analysis Methods for Tin Content Determination by Alizarin Violet Spectrophotometry (GB/T 4702.11)

---Chemical analysis method for chromium metal. Determination of carbon content by infrared absorption method (GB/T 4702.14);

1 Scope

GB/T 4702.2-2025 is the Chinese national standard covering silicon in chromium metal by two routes - the perchloric acid dehydration and weighing for the higher range and the molybdenum blue colorimetry for the lower, with the dissolution of a stubborn metal and the interferences in each. Part 2 of the chromium metal analysis series. It replaces GB/T 4702.2-2008, in force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 4702.2-2008.

2.Determining the repeatability of standard measurement methods Basic methods of sex and representation

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 4010 Sample collection and preparation for chemical analysis of ferroalloys

GB/T 6379.1 Accuracy (correctness and precision) of measurement methods and results - Part

GB/T 6379.2 Accuracy (correctness and precision) of measurement methods and results - Part

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 8170 Rules for rounding off numerical values and the representation and determination of limiting values

GB/T 12806 Laboratory Glassware - Single-mark volumetric flasks

GB/T 12807 Graduated Pipettes for Laboratory Glassware

GB/T 12808 Laboratory Glassware - Single-mark Pipettes

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

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