Chinastandards.org

ICS 73.080
CCS D 52

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

chinastandards.org - PREVIEW

GB/T 5195.4-2025

Replacing GB/T 5195.4-2006

Methods for chemical analysis of fluorspar - Part 4: Determination of total sulfur and sulfide content

萤石化学分析方法 第4部分：总硫、硫化物含量的测定

Issued on: August 29, 2025 **Implemented on: March 1, 2026**

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

Preview: page 1 of 5 shown, 15 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-5195-4-2025

Chinastandards.org

Table of Contents

chinastandards.org · PREVIEW

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 4 of GB/T 5195.GB/T 5195 has the following parts published.

- GB/T 5195.1 Determination of calcium fluoride content in fluorite by EDTA titration and distillation-potentiometric titration;

- GB/T 5195.2 Determination of fluorite carbonate content;

- GB/T 5195.3 Determination of mass loss of fluorite at 105°C by gravimetric method;

- GB/T 5195.4 Chemical Analysis Methods for Fluorite - Part 4: Determination of Total Sulfur and Sulfide Content;

- GB/T 5195.6 Determination of phosphorus content in fluorite using spectrophotometry;

- GB/T 5195.7 Determination of Zinc Content in Fluorite by Atomic Absorption Spectrometry;

- GB/T 5195.8 Determination of silica content in fluorite;

- GB/T 5195.9 Determination of Loss on Ignition of Fluorite by Gravimetric Method;

- GB/T 5195.10 Determination of iron content in fluorite by o-phenanthroline spectrophotometry;

- GB/T 5195.11 Determination of manganese content in fluorite using periodate spectrophotometry;

Preview: page 2 of 5 shown, 15 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-5195-4-2025

- GB/T 5195.12 Chemical Analysis Methods for Fluorite - Part 12.Determination of Arsenic Content;

- GB/T 5195.13 Determination of aluminum content in fluorite by EDTA titration;

- GB/T 5195.14 Determination of magnesium content in fluorite by flame atomic absorption spectrometry;

- GB/T 5195.15 Determination of Calcium, Aluminum, Silicon, Phosphorus, Sulfur, Potassium, Iron, Barium and Lead Content in Fluorite - Wavelength Dispersive X-ray Fluorescence Spectroscopy;

- GB/T 5195.16 Determination of silicon, aluminum, iron, potassium, magnesium and titanium content in fluorite - Inductively coupled plasma atomic emission spectrometry Spectroscopy;

- GB/T 5195.17 Determination of fluorite flotation reagent content by gravimetric method;

- GB/T 5195.18 Determination of barium sulfate content in fluorite by gravimetric method.

This document replaces GB/T 5195.4-2006 "Determination of Sulfide Content in Fluorite - Iodometric Method" and GB/T 5195.5-2017 "Fluorite".

"Determination of Total Sulfur Content in Limestone by Tubular Furnace Combustion-Potassium Iodate Titration Method", consistent with GB/T 5195.4-2006 and GB/T 5195.5-2017 Aside from structural adjustments and editorial modifications, the main technical changes are as follows.

a) The scope of application of the standard has been changed (see Chapter 1, Chapter 1 of GB/T 5195.4-2006, and Chapter 1 of GB/T 5195.5-2017). Chapter 1);

b) Added terms and definitions (see Chapter 3);

c) The calibration of the titer of potassium iodate standard titration solution for similar standard samples/standard substances has been removed (see GB/T 5195.5-2017). (4.7 and 8.1.2)

d) Change "weigh 12.5g of sodium thiosulfate" in Method 2 to "weigh 12.5g of sodium thiosulfate pentahydrate (Na2S2O3-5H2O)".

(See 5.2.6.1, 4.7.1 of GB/T 5195.4-2006);

e) The determination and representation of results in Method 2 have been added, and the process for determining the analysis results and the rules for rounding off values are given (see 5.8);

f) The content of the test report has been changed (see Chapter 6, Chapter 10 of GB/T 5195.4-2006, and Chapter 10 of GB/T 5195.5-2017). (10 chapters).

Please note that some content in this document may involve patents. The issuing

Preview: page 3 of 5 shown, 15 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-5195-4-2025

organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Iron and Steel Association.

This document is under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC183).

This document was drafted by: Shougang Group Co., Ltd., Metallurgical Industry Information and Standardization Research Institute, and Shougang Shuicheng Iron & Steel (Group) Co., Ltd. company.

The main drafters of this document are: Qin Hancheng, Zhao Mengying, Wang Shanshan, Yang Zhiqiang, Wang Xiaoyuan, Meng Xiangsheng, Wu Zhaohui, Bai Xue, and Liu Yanting.

Xu Yonglin, Li Tie, Cheng Zhaoyang.

The document replaced by this document has been released in the following versions.

- GB/T 5195.4, first published in 1985, first revised in 2006;

- GB/T 5195.5 was first published in 1985, revised for the first time in 2006, and revised for the second time in 2017.

chinastandards.org PREVIEW

Introduction

To facilitate the detection of elements in fluorite, GB/T 5195 "Methods for Chemical Analysis of Fluorite" is proposed to be classified according to the elements determined and the methods used, into categories based on. Part 2.

- Part 1: Determination of Calcium Fluoride Content by EDTA Titration and Distillation-Voltage Titration;

- Part 2: Determination of carbonate content;

- Part 3: Determination of mass loss at 105°C by gravimetric method;

- Part 4: Determination of total sulfur and sulfide content;

- Part 6: Determination of Phosphorus Content by Spectrophotometry;

- Part 7: Determination of Zinc Content by Atomic Absorption Spectrometry;

- Part 8: Determination of silica content;

- Part 9: Determination of Loss on Ignition by Gravimetric Method;

- Part 10.Determination of Iron Content by o-phenanthroline Spectrophotometry;

- Part 11.Determination of Manganese Content by Periodate Spectrophotometry and Flame Atomic Absorption Spectrometry;

- Part 12.Determination of Arsenic Content;

Preview: page 4 of 5 shown, 15 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-5195-4-2025

- Part 13.Determination of Aluminum Content by EDTA Titration;

- Part 14.Determination of Magnesium Content by Flame Atomic Absorption Spectrometry;

- Part 15.Determination of the content of calcium, aluminum, silicon, phosphorus, sulfur, potassium, iron, barium, and lead by wavelength dispersive X-ray fluorescence spectrometry;

- Part 16.Determination of Silicon, Aluminum, Iron, Potassium, Magnesium and Titanium Content by Inductively Coupled Plasma Atomic Emission Spectrometry;

- Part 17.Determination of flotation reagent content by gravimetric method;

- Part 18.Determination of Barium Sulfate Content by Gravimetric Method Chemical analysis methods for fluorite Part 4: Determination of Total Sulfur and Sulfide Content Warning---Personnel using this document should have practical experience working in a formal laboratory. This document does not address all possible safety issues.

Users are responsible for taking appropriate safety and health measures and ensuring compliance with relevant national regulations.

chinastandards.org · PREVIEW

1 Scope

This document describes the determination of total sulfur content using a tube furnace combustion-potassium iodate titration method and the determination of sulfide content using iodometric titration.

This document applies to the determination of total sulfur and sulfide content in fluorite. Method 1.Total sulfur determination range (mass fraction). 0.010% ~ 1.000%; Method 2 determination range (mass fraction). w>=0.001% (sulfides are calculated as sulfur). When polysulfides are present in the sample, this method... The law does not apply.

2 Normative references

GB/T 6682

GB/T 8170

GB/T 12806

GB/T 12807

GB/T 22564

3 Terms and Definitions

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

Preview: page 5 of 5 shown, 15 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-5195-4-2025