

ICS 73.080

CCS D 52



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

GB/T 5195.17-2018

**Fluorspar -- Determination of flotation agents -- Gravimetric
method**

Issued on: September 17, 2018

Implemented on: June 1, 2019

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Principle

4 reagents

4.1 Hydrochloric acid, $\rho = 1.19 \text{ g/mL}$.

4.2 Solvent. 1,1,2-trifluorotrichloroethane, re-distillation.

5 instruments

5.2 Separating funnel. 1000 mL.

5.3 Mechanical agitator. An electric motor with a 40 mm diameter paddle.

5.4 Water bath heating device.

6 Sampling and sample preparation

Foreword

The analysis method of GB/T 5195 fluorite is divided into the following parts.

- GB/T 5195.1 Determination of fluorite calcium fluoride content EDTA titration and distillation - potentiometric titration;
- GB/T 5195.2 Determination of fluorite carbonate content;
- GB/T 5195.3 Determination of the mass loss of fluorite 105°C ;
- GB/T 5195.4 Determination of fluorite content of fluorite - Iodometric method;
- GB/T 5195.5 Determination of total sulfur content of fluorite - Tube furnace combustion - Potassium iodate titration;
- GB/T 5195.6 Determination of fluorite phosphorus content by spectrophotometry;
- GB/T 5195.7 Determination of zinc content of fluorite - Atomic absorption spectrometric method;
- GB/T 5195.8 Determination of fluorite silica content;
- GB/T 5195.9 Determination of the weight loss of fluorite burning;
- GB/T 5195.10 Determination of fluorite iron content - phenanthroline spectrophotometric method;

- GB/T 5195.11 Determination of manganese content of fluorite - periodate spectrophotometric method;
- GB/T 5195.12 Determination of arsenic content of fluorite atomic fluorescence spectrometry;
- GB/T 5195.13 Determination of fluorite aluminum content EDTA titration;
- GB/T 5195.14 Determination of magnesium content of fluorites by flame atomic absorption spectrometry;
- GB/T 5195.15 Determination of calcium, aluminum, silicon, phosphorus, sulfur, potassium, iron, antimony and lead in fluorite. Wavelength dispersive X-ray fluorescence Spectral method
- GB/T 5195.16 Determination of fluorite silicon, aluminium, iron, potassium, magnesium and titanium content by inductively coupled plasma atomic emission spectrometry;
- GB/T 5195.17 Determination of the content of fluorite flotation agent;
- GB/T 5195.18 Determination of fluorite strontium sulfate content by weight method;
- GB/T 5195.19 Determination of arsenic content of fluorite - Diethyldithiocarbamate silver photometric method.

This part is the 17th part of GB/T 5195.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the redrafting method to modify the use of ISO 3703..1993 "acid grade and ceramic grade fluorite flotation agent content determination."

This section has more structural adjustments than ISO ISO 3703.1993. This section and ISO 3703 are listed in Appendix A.

A list of chapters in.1993.

There are technical differences between this part and ISO 3703.1993. The techniques in this part and ISO 3703.1993 are given in Appendix B.

A list of sexual differences and their causes.

This section also made the following editorial changes.

- In line with the existing standard series, the standard name is changed to "the method for determining the content of fluorite flotation agent";
- Added informative Appendix A and Appendix B to provide a comparison and technicality of this part with the structural changes of ISO 3703.1993

Description of the difference.

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

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

This section drafted by. Shanghai Entry-Exit Inspection and Quarantine Bureau of the People's Republic of China Industrial Products and Raw Materials Testing Technology Center, Qingdao Bozheng

Inspection Technology Co., Ltd., Metallurgical Industry Information Standards Institute.

1 Scope

This part of GB/T 5195 specifies the method for the determination of the flotation agent content in fluorite by gravimetric method.

This section applies to the determination of flotation agent content in fluorite produced by flotation method, the measurement range (mass fraction). 0.002% or more.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 5195.3 Determination of the mass loss of fluorite at 105 ° C (GB/T 5195.3-2006, ISO 4282.1992,

MOD)

GB/T 6682 Analytical laboratory water specifications and test methods (GB/T 6682-2008, ISO 3696.1987, MOD)

GB/T 22564-2008 Fluorite sampling and sample preparation (ISO 8868.1989, IDT)

3 Principle

A mixed liquid of dilute hydrochloric acid and an organic solvent was added to the sample, and after sufficiently stirring, the insoluble fluorite was removed by vacuum filtration.

Passing on

In the treatment, the flotation agent is extracted into the organic phase in the filtrate, and after volatilizing the organic solvent, the residue is weighed, and the result of the flotation agent content is calculated.

4 reagents

Only the approved analytical reagents were used in the analysis, and only the secondary water in accordance with GB/T 6682 or its equivalent purity water was used.

5 instruments

5.1 Vacuum suction filter. including a Buchner funnel with a diameter of 120mm, double-layered fast qualitative filter paper and a 1000mL

Brinell flask.

6 Sampling and sample preparation

Analytical samples were prepared in accordance with the requirements of 9.1 of GB/T 22564-2008.