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**NONFERROUS METALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YS/T 575.19-2021

**Methods for chemical analysis of bauxite - Part 19:
Determination of loss on ignition - Gravimetric method
(English Translation)**

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1.Rules for the Structure and Drafting of Standardizing Documents.

This Document is Part 19 of YS/T 575 Methods for Chemical Analysis of Bauxite. YS/T 575 has published the following parts.

- Part 1.Determination of aluminum oxide content EDTA titrimetric method;
- Part 2.Determination of silicon dioxide content Gravimetric-molybdenum blue photometric method;
- Part 3.Determination of silicon dioxide content molybdenum blue photometric method;
- Part 4.Determination of iron oxide content - Dichromate titrimetric method;
- Part 5.Determination of iron oxide content - Orthophenanthroline photometric method;
- Part 6.Determination of titanium dioxide content - Diantipyrylmethane photometric method;
- Part 7.Determination of calcium oxide content - Flame atomic absorption spectrophotometric method;
- Part 8.Determination of magnesium oxide content - Flame atomic absorption spectrophotometric method;

- Part 9.Determination of potassium oxide and sodium oxide content - Flame atomic absorption spectrophotometric method;
- Part 10.Determination of manganese oxide content - Flame atomic absorption spectrophotometric method;
- Part 11.Determination of chromium oxide content - Flame atomic absorption spectrophotometric method;
- Part 12.Determination of vanadium pentoxide content N-benzoyl-N-phenylhydroxylamine photometric method;
- Part 13.Determination of zinc content - Flame atomic absorption spectrophotometric method;
- Part 14.Determination the total content of rare earth oxide - Tribromo-arsenazo photometric method;
- Part 15.Determination of gallium oxide content - Rhodamine B-extraction photometric method;
- Part 16.Determination of phosphorus pentoxide content - Molybdenum blue spectrophotometric method;
- Part 17.Determination of sulfur content - Direct combustion-iodometric method;
- Part 18.Determination of total carbon content - Non-aqueous titrimetric method after combustion;
- Part 19.Determination of loss on ignition - Gravimetric method
- Part 20.Preparation of pre-dried sample;
- Part 21.Determination of organic carbon content titrimetric method;
- Part 22.Determination of hygroscopic moisture on gravimetric method;
- Part 23.Determination of element contents X-ray fluorescence spectrometric method;
- Part 24.Determination of carbon content and sulfur content - Infrared absorption method'
- Part 25.Determination of sulfur content - Coulometric titration method.

Some contents of this Document may involve patents. The issuing agency of this Document shall not assume the responsibility to identify these patents.

This Document replaced YS/T 575.19-2007 Methods for Chemical Analysis of Bauxite - Part

19 Determination of the Loss on Ignition - Gravimetric Method. Compared with YS/T 575.19-

2007, this Document has the major technical changes as follows besides the structural adjustments and editorial modifications.

a) Modify the original standard to "air balance wet water correction method"; add "pre-dried specimen determination method"; and adopt the arbitration method of "air balance wet water correction method" (see Clauses 5 and 6 of this Edition; Clauses 6 and 7 of the

2007 Edition);

b) Modify the precision (see Clause 7 of this Edition; Clause 8 of the 2007 Edition);

c) Modify the test report (see Clause 8 of this Edition; Clause 9 of the 2007 Edition).

This Document was proposed by and under the jurisdiction of National Technical Committee

on Nonferrous Metals of Standardization Administration of China (SAC/TC 243).

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The historical editions replaced by this Document are as follows.

--- YS/T 575.19-2006 was first-time published in 2006; first-time revised in 2007;

--- It is second-time revised hereby.

1 Scope

This Document specifies the method for determining the loss on ignition in bauxite ores.

This Document is applicable to the determination of the loss on ignition in bauxite ores, with a

determination range of 10.00% ~ 30.00%. Other types of aluminosilicates such as clay and kaolin can be used for reference.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates

indicated are applicable to this Document; for the undated documents, only the latest version

(including all the amendments) is applicable to this Document.

GB/T 8170 Rules of rounding off for numerical values & expression and judgement of limiting values

YS/T 575.20 Methods for chemical analysis of bauxite - Part 20.Preparation of pre-dried sample

YS/T 575.22 Methods for chemical analysis of bauxite - Part 22.Determination of hydroscopic moisture - Gravimetric method

3 Terms and Definitions

For the purposes of this Document, there are no terms and definitions apply.

45 mm. The porcelain crucible shall be burned in a high temperature furnace at 1075°C ± 25°C

for at least 3 h before the first use.