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PEOPLE'S REPUBLIC OF CHINA**

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Replacing GB/T 5484-2012

Methods for chemical analysis of gypsum

石膏化学分析方法

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting:

This document replaces GB/T 5484-2012 "Chemical analysis method for gypsum": Compared with GB/T 5484-2012, except for the structural adjustment and compilation In addition to logical changes, the main technical changes are as follows:

a) Change "other analysis results are expressed on a dry basis (see 3:2)" to "other analysis results are expressed (on an as-received basis or on a dry basis)" The user shall make the selection and, if necessary, indicate whether it is the received basis result or the dry basis result" (see 4:2, 4:2 of the:2012 edition);

b) Deleted the following: "Convert the analytical results other than adhering water into dry

basis results: Convert the measured as-received basis results X_r into The dry basis result X is calculated according to formula (17)" (see 7:1:2 of the:2012 edition);

c) Deleted "Determination of Chloride Ions - Phosphoric Acid Distillation-Mercury Salt Titration Method (Substitute Method)" (Chapter 37 of the:2012 Edition);

d) Added "Determination of chloride ion---ion chromatography (alternative method)" (see Chapter 38);

e) Deleted "Determination of Carbon Dioxide - Automatic Photoelectric Titration (Substitute Method)" (Chapter 39 of the:2012 Edition);

f) Added "Determination of Carbon Dioxide - Infrared Analysis (Substitute Method)" (see Chapter 39);

g) Added "Inductively coupled plasma emission spectrometry for determination of ferric oxide, aluminum oxide, magnesium oxide, titanium dioxide, Potassium, sodium oxide, manganese monoxide, phosphorus pentoxide (substitute method)" (see Chapter 40);

h) Added "Determination of water-soluble chromium (VI)" (see Chapter 41);

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The previous versions of this document and the documents it replaces are as follows:

- First published in 1985, first revised in:2000, and second revised in:2012;
- This is the third revision:

1 Scope

This document specifies reference and alternative methods for the chemical analysis of natural gypsum, anhydrite and industrial by-product gypsum:

This document applies to natural gypsum, anhydrite and industrial by-product gypsum:

2 Normative references

GB/T 176

GB/T 2007

GB/T 6682

GB/T 12960

GB 31893

3 Terms and definitions

The following terms and definitions apply to this document: 3:1 receivedbase Based on the plaster as received: 3:2 Dry base The gypsum with attached water removed is taken as the benchmark, that is, the gypsum sample is dried to a constant state at $45^{\circ}\text{C}\pm 3^{\circ}\text{C}$:

4 Basic requirements for the test

4:1 Test times and requirements The number of tests for each determination is specified to be two, and the absolute difference between the two results is within the allowable difference of the same laboratory (see Table 3):

The average value of the test results represents the measurement result:

4:2 Expression of mass, volume, titer and results The mass is expressed in grams (g) with an accuracy of 0:0001g: The volume of the burette is expressed in milliliters (mL) with an accuracy of 0:01mL:

The unit of measurement is expressed in "milligram per milliliter (mg/mL)":