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

GB/T 218-2016

Replacing GB/T 218-1996

Determination of the carbonate carbon dioxide content in coal

煤中碳酸盐二氧化碳含量测定方法

(English Translation)

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Foreword

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

This standard replaces GB/T 218-1996 "Determination of carbonate carbon dioxide content in coal", compared with GB/T 218-1996, except Editorial changes, the main technical changes are as follows.

- Increased positive pressure supply test method (see 5.2, 6.2);
- an increase in the accuracy of the test system (see 6.1.4, 6.2.4);
- Added chapter on the test report (see Chapter 9).

This standard uses the re-drafting method to modify ISO 925.:1997 "Solid fossil fuels Carbonate Carbon content determination method Weight law".

This standard has a greater structural adjustment compared to ISO 925.:1997, which is listed in Appendix A and the ISO 925.:1997 A comparison of the numbers. There are technical differences compared to ISO 925.:1997, and the terms involved in these differences have been passed on their outer margins the vertical single line (-) of the blank position is marked, and Appendix B gives a list of the corresponding technical differences and their causes.

This standard is proposed by China Coal Industry Association.

This standard is under the jurisdiction of the National Coal Standardization Technical Committee (SAC/TC42).

The drafting unit of this standard. Coal Science and Technology Research Institute Co., Ltd. Detection Branch.

1 Scope

This standard specifies the method for the determination of carbonate carbon dioxide in coal. Summary, reagents and materials, equipment, test procedures, results, Precision and test reports.

This standard applies to lignite, bituminous coal, anthracite.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article. For undated references, the latest edition (including all modifications) applies to this document.

Rules for the analysis of coal - General test methods GB/T 6682 Analytical laboratory water specifications and test methods

3 Method summary

After the coal sample is treated with hydrochloric acid, the carbonates in the coal decompose and precipitate the carbon dioxide gas. The precipitated carbon dioxide gas is filled with alkali asbestos (or Soda lime) absorbance of the absorber, according to the increase in the quality of the absorber to calculate the carbonate carbon dioxide content of carbon dioxide.

4 Reagents and materials

4.1

distilled water. GB/T 6682, three, and by boiling to remove carbon dioxide.

4.2

anhydrous calcium chloride. CaCl_2 , chemical purity, particle size 3mm ~ 6mm.

4.3

asbestos or soda lime. particle size 1mm ~ 2mm.

4.4

Sodium hydroxide. NaOH , chemically pure, granular.

4.5

anhydrous sodium carbonate. Na_2CO_3 , excellent grade pure, before each use should be excellent grade pure anhydrous sodium carbonate at $130\text{ }^\circ\text{C}$ drying 1h ~ 2h, in the dry Placed in the room after the standby.

4.6

sulfuric acid. $\rho_{20\text{ }^\circ\text{C}} = 1.84\text{g/cm}^3$.

4.7

Wetting agent. 95% ethanol.

4.8

hydrochloric acid solution. (1 3), 1 volume of hydrochloric acid plus 3 volumes of water to mix.

4.9

Air. air (negative pressure supply mode), compressed air or synthetic air (positive pressure supply mode), synthetic air purity of 99.9% or more.

4.10

Nitrogen. Purity 99.9% or more.

4.11

granular anhydrous copper sulfate pumice. the particle size of 1.5mm ~ 3.0mm pumice immersed in copper sulfate saturated solution, boil 2h ~ 3h, Remove the pumice placed in the enamel plate, and then put the porcelain plate into the oven, at $160\text{ }^\circ\text{C}$ ~ $170\text{ }^\circ\text{C}$, stir every 30min until Dry to white, stored in a closed bottle.