

ICS 73.060

CCS D43



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

GB/T 17414.2-2010

Replacing GB/T 17414.2-1998

**Method for chemical analysis of Beryllium ores - Part 2:
Determination of Beryllium content - Catalytic polarographic
method**

铍矿石化学分析方法 第2部分：铍量测定 催化极谱法

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Foreword

GB/T 17414 "Method for chemical analysis of beryllium ores" There are two parts.

- Part 1. Determination of the amount of beryllium Aili Luo cyanine R spectrophotometry;
- Part 2. Determination of beryllium by catalytic polarography. This section GB/T Part of 217,414. This Part replaces GB/T 17414.2-1998 "Method for chemical analysis of beryllium ores Catalytic Polarographic Determination of beryllium content." This section compared with the GB/T 17414.2-1998, the main changes are as follows:
 - Modify this part of the English name;
 - Text format has been modified;
 - Formula for calculating the mass fraction represented by the symbol w instead of ω (%);
 - Increased warning warnings;
 - Increased provision sample;
 - Increased waste disposal provisions. This section presents the People's Republic of China Ministry of Land Resources. This part of the National Standardization Technical Committee under the jurisdiction of Land and Resources. This section is responsible for drafting. National geology test center. This section is drafted. Liaoning Provincial Institute of Geology. The main drafters of this section. Shao Wenjun, Yang Wei. This part of the standard replaces the previous editions as. GB/T 17414.2-1998. Methods for chemical analysis of beryllium ores Part 2. Determination of the amount of beryllium Polarography Warning. Use of this standard shall have a person experiences regular laboratory work. This standard does not point out all possible security issues. Users have the responsibility to take appropriate safety and health practices and to ensure compliance with the conditions relevant national regulations.

1 Scope

GB/T 17414.2-2010 is the Chinese national standard on method for chemical analysis of

beryllium ores - part 2: determination of beryllium content - catalytic polarographic method, in the field of mining and minerals. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 November 2010 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2011. Classification: ICS 73.060, CCS D43. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

GB/T 17414 provisions of this part of the method for the determination of beryllium in the beryllium ore amount of catalytic polarography. This section applies to beryllium ore, also applies to lithium, rubidium, cesium and tantalum, niobium ore low levels of beryllium contents. Measurement range. 0.0001% to 0.40% (by mass) the amount of beryllium (beryllium oxide dollars).

2 Normative references

The following documents contain provisions which, through

GB/T 17414 in this part of the reference in terms of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section. Laboratory use specifications and test methods

GB/T 6682 Analysis Principle

3 Sample by sodium hydroxide - fusion with sodium peroxide decomposition, water extraction, acidified with hydrochloric acid, evaporated to dryness and the silica dehydration, dilute hydrochloric acid dissolved salts to Chloride - ammonia - disodium edetate - beryllium III reagent liquid to the bottom, on the oscilloscope Polarograph at peak potential of about -0.8V, be derivative Polarography. Wave height and density linear measurement range of 0.001µg/mL ~ 0.80µg/mL amount of beryllium (beryllium oxide dollars).

4 Reagents

The reagents used in this section, unless otherwise indicated, the use of analytical chemical reagents and in line with GB/T 6682 analysis laboratory analysis Water.

4.1 sodium hydroxide.

4.2 sodium peroxide.

4.3 sulfate (rho1.84g/mL).

4.4 sulfate (11). Warning. Under constant stirring to concentrated sulfuric acid was slowly added to the water, be careful

4.5 hydrochloride (rho1.19g/mL).

4.6 hydrochloride (14).

4.7 mixing base solution prepared.

a) weighed 120.0g disodium edetate,

80.0 g of ammonium chloride dissolved in water, aqueous ammonia was added 166mL, diluted with water to 1000mL;

b) beryllium III reagent solution (0.12g/L), protected from light;

c) To a mixed solution of 200mL [4.7a)] and 100mL beryllon III solution [4.7b)] mixing, mix, formulated with time.

4.8 Beryllium oxide standard solution preparation.

a) beryllium oxide standard stock solution (100.0 μ g/mL). Weigh 0.1g beryllium oxide (spectroscopically pure) accurate to 0.1mg, burning at 500 °C After firing, placed in 100mL beaker, add 10mL sulfuric acid (4.4) and heated until all dissolved and transferred to 1000mL capacity