

ICS 73.060

CCS D43



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

GB/T 17413.2-2010

Replacing GB/T 17413.2-1998

**Methods for chemical analysis of lithium, rubidium and cesium
ores - Part 2: Determination of rubidium content**

锂矿石、铷矿石、铯矿石化学分析方法 第2部分：铷量测定

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Foreword

GB/T 17413 "lithium ore, ore rubidium, cesium ores chemical analysis method" is divided into three parts.

--- Part 1. Determination of the amount of lithium;

--- Part 2. Determination of the amount of rubidium;

--- Part 3. Determination of the amount of cesium. This section GB/T 17413 Part 2. This Part replaces GB/T 17413.2-1998 "lithium ore, ore rubidium, cesium ores Chemical analysis by flame atomic absorption/emission points Determination of the amount of rubidium "spectrophotometric method. This section compared with the GB/T 17413.2-1998, the main changes are as follows:

--- Modify this part of Chinese name;

--- Modify this part of the English name;

--- Increased alert, warning of the content;

--- Increasing the purity of the reagents used and experimental water requirements;

--- Increasing the particle size of the sample and drying requirements;

--- Increased verification test content. Appendix A of this section is informative appendix. 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. Hubei Institute of Geology. The main drafters of this section. to Zhao, Fang Jindong, Tangxing Min. This part of the standard replaces the previous editions are.

--- GB/T 17413.2-1998. Lithium ore, ore rubidium, cesium ores chemical analysis Part 2. Determination of the amount of rubidium Warning. Use of this standard shall have a person experiences regular laboratory work. This section does not indicate that 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 17413.2-2010 is the Chinese national standard on methods for chemical analysis of lithium, rubidium and cesium ores - part 2: determination of rubidium content, 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 17413 provisions of this part of lithium ore, ore rubidium, cesium method of measuring the amount of rubidium oxide ores. This section applies to lithium ore, ore rubidium, cesium ores, but also for tantalum, niobium, rubidium oxide ore and the determination of the amount of rare earth mineral. Measuring range. 50µg/g ~ 2 x 104µg/g of rubidium oxide.

2 Normative references

The following documents contain provisions which, through

GB/T 17413 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 hydrofluoric acid, sulfuric acid decomposition, adding a certain amount of potassium as deionization agent, 1% sulfuric acid medium, atomic absorption spectrophotometry Acetylene flame measured absorbance or rubidium oxide emission intensity, calculated the amount of rubidium oxide - on the meter, at a wavelength of 780.0nm, the use of air.

4 Reagents

Unless otherwise indicated in the analysis are consistent with the use of analytical reagents and GB/T 6682 water analytical laboratory.

4.1 Hydrofluoric acid ($\rho=1.13\text{g/mL}$). WARNING. Hydrofluoric acid is toxic and corrosive, the operation should wear gloves to prevent skin contact

4.2 sulfate (11). Warning. When diluted improper operation could easily cause burns

4.3 potassium chloride solution $\rho(\text{K}_2\text{O}) = 30\text{mg/mL}$. Weigh 47.49g potassium chloride (KCl) in a beaker, dissolved in water and transferred to 1000mL Volumetric flask, dilute to the mark, shake. Rubidium oxide

4.4 Standard solution.

a) rubidium oxide standard stock solution. Weigh 0.6469g spectroscopically pure rubidium chloride (105°C bake 2h and placed in the dryer to cool to room Temperature) in 250mL beaker, add water, dissolved and transferred to 500mL volumetric flask, dilute to the mark, shake. This solution oxygen Rubidium concentration of 1.0mg/mL ;

b) rubidium oxide standard solution. Pipette 25.00mL rubidium oxide standard stock solution [4.4a], set 500mL flask with water Dilute to the mark. Rubidium oxide concentration of the solution was $50.00\mu\text{g/mL}$.

5 Instruments

5.1 atomic absorption spectrophotometer (with transmitter function). Attached rubidium element hollow cathode lamp.

5.2 Analytical balance. three, a sense of the amount of 0.1mg .

6 Sample

6.1 Sample particle size less than $74\mu\text{m}$.