

ICS 77.120.99
H 64



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

中华人民共和国国家标准

GB/T 11064.9-2013

Replace GB/T 11064.9-1989

**Methods for chemical analysis of lithium
carbonate, lithium hydroxide monohydrate and
lithium chloride -**

**Part 9: Determination of sulfate content- Barium
sulfate nephelometry method**

碳酸锂、单水氢氧化锂、氯化锂 化学分析方法

第 9 部分：硫酸根量的测定 硫酸钡浊度法

Issued on November 27, 2013

Implemented on August 01, 2014

**Issued by General Administration of Quality Supervision, Inspection
and Quarantine of the People's Republic of China**

**Standardization Administration of the People's Republic of
China**

Table of Contents

Foreword.....	3
1 Scope.....	5
2 Method Summary.....	5
3 Reagents.....	5
4 Instrumentation	5
5 Samples	6
6 Analysis Steps.....	6
7 Calculation of Analysis Results	7
8 Precision	8
9 Test report.....	9

Foreword

GB/T 11064 "Methods for chemical analysis of lithium carbonate, lithium hydroxide monohydrate and lithium chloride" is divided into 16 parts:

- Part 1: Determination of lithium carbonate content - Acid-alkali titrimetric method
- Part 2: Determination of lithium hydroxide content - Acid-alkali titrimetric method
- Part 3: Determination of lithium chloride content - Potentiometric method
- Part 4: Determination of potassium and sodium content - Flame atomic absorption spectrometric method
- Part 5: Determination of calcium content - Flame atomic absorption spectrometric method
- Part 6: Determination of magnesium content - Flame atomic absorption spectrometric method
- Part 7: Determination of iron content-1,10-phenanthroline spectrophotometric method
- Part 8: Determination of silicon content - Molybdenum blue spectrophotometric method
- Part 9: Determination of Sulfate Content - Barium Sulfate Nephelometry Method
- Part 10: Determination of chloride content - Silver chloride nephelometry method
- Part 11: Determination of Acid-insolubles Content - Gravimetric Method
- Part 13: Determination of aluminum content - Chromazurol S-cetylpyridine bromide spectrophotometric method
- Part 14: Determination of arsenic content - Molybdenum blue spectrophotometric method
- Part 15: Determination of Fluoride Content - Ion Selective Method
- Part 16: Determination of calcium, magnesium, copper, lead, zinc, nickel, manganese, cadmium and aluminum content - Inductively coupled plasma atomic emission spectrometry

This Part is part 9 of GB/T 11064.

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

The Part replaces GB/T 11064.9-1989 "Lithium carbonate, lithium hydroxide monohydrate and lithium chloride-Determination of sulphide content-Reduction

titrimetric method".

Compared with GB/T 11064.9-1989, the main changes of this Part are as follows:

- Change the determination method;
- ADD the repeatability terms;
- RE-EDIT the text format; ADD the test report.

This Part shall be under the jurisdiction of National Standardization Technical Committee of Nonferrous Metals (SAC/TC 243).

Drafting organizations of this Part: Sichuan Tianqi Lithium Industries Inc., Lithium-Calcium Company, CNNC Jianzhong Nuclear Fuel Co.,Ltd., Haimen Ronghui General Lithium Co., Ltd. and Xinjiang Research Institute of Non ferrous Metals.

The main drafters of this Part: Jin Peng, Tu Mingjiang, Gou Haixia, Luo Yuping, Guan Yuzhen, Chen Yan, Zhang Jingdong, Zhao Bing, Deng Hongyun and Liu Yan.

The historical version replaced by this Part is as follows:

- GB/T 11064.9-1989.

Methods for chemical analysis of lithium carbonate, lithium hydroxide monohydrate and lithium chloride -

Part 9: Determination of sulfate content- Barium sulfate nephelometry method

1 Scope

This part of GB/T 11064 specifies the determination method of sulfate content in lithium carbonate, lithium hydroxide monohydrate and lithium chloride.

The part applies to the determination of sulfate content in lithium carbonate, lithium hydroxide and monohydrate and lithium chloride. The determination range: 0.0050%~0.80%.

2 Method Summary

In the hydrochloric acid, the barium and sulfate ions will generate the barium sulfate. Within a certain time, the barium sulfate is suspended in the solution, measure its absorbance at 420nm of wavelength of spectrophotometer to get the content of sulfate.

3 Reagents

Unless otherwise specified, the reagent used in the part is an analytical pure reagent, and the water used here is the secondary deionized water.

3.1 Hydrochloric acid (1+1), GR

3.2 Hydrochloric acid (1+3), GR

3.3 Ammonium Hydroxide (1+3), GR

3.4 Glycerol solution (1+4).

3.5 Barium chloride solution (200 g/L), and prepare it according to the needs.

3.6 Paranitrophenol indicator (1 g/L).

3.7 Sulfate standard storage solution: weigh 0.907 5 g; dry it for 2h at the temperature of 105 °C ~110 °C in advance and put it in the dryer to cool to the potassium sulfate at the room temperature (excellent pure), place it in the beaker of 250mL, dissolve with the water, move to the volumetric flask of 1000 mL, dilute to the volume with water, mix well, and 1

完整版本请在线下单/Order Checks Online for Full version

联系我们/or Contact:

TEL: 400-678-1309

QQ: 19315219 | Skype: Lancarver

Email : info@lancarver.com

<http://www.lancarver.com>

线下付款方式 :

I. 对公账户 :

单位名称 : 北京文心雕语翻译有限公司

开户行 : 中国工商银行北京学清路支行

账 号 : 0200 1486 0900 0006 131

II. 支付宝账户 : info@lancarver.com

III. Paypal: info@lancarver.com

注: 付款成功后, 请预留电邮, 完整版本将在一个工作日内通过电子 PDF 或 Word 形式发送至您的预留邮箱, 如需索取发票, 下单成功后的三个工作日内安排开具并寄出, 预祝合作愉快!

NOTE All documents on the store are in electronic Adobe Acrobat PDF format, there is not sell or ship documents in hard copy. Mail the order and payment information to info@lancarver.com, you will shortly receive an e-mail confirming your order.

