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

GB/T 14352.9-2010

Replacing GB/T 14352.9-1993

**Methods for chemical analysis of tungsten ores and
molybdenum ores - Part 9: Determination of sulfur content**

钨矿石、钼矿石化学分析方法 第9部分：硫量测定

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Foreword

GB/T 14352 "tungsten ores and molybdenum ores chemical analysis methods," a total of 18 parts.

- Part 1. Determination of tungsten;
- Part 2. Determination of molybdenum;
- Part 3. Determination of copper content;
- Part 4. Determination of lead content;
- Part 5. Determination of the amount of zinc;
- Part 6. Determination of cadmium content;
- Part 7. Determination of cobalt content;
- Part 8. Determination of nickel content;
- Part 9. Determination of sulfur content;
- Part 10. Determination of arsenic content;
- Part 11. Determination of the amount of bismuth;
- Part 12. determination of silver;
- Part 13. Determination of tin;

1 Scope

GB/T 14352.9-2010 is the Chinese national standard on methods for chemical analysis of tungsten ores and molybdenum ores - part 9: determination of sulfur 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 D40. 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.

This section GB/T 14352 provides for tungsten ores and molybdenum ores in the determination of sulfur content. This Part applies to tungsten ores and determination of sulfur content of molybdenum ore. Measurement range. from 0.05% to 10% sulfur.

2 Normative references

The following documents contain provisions which, through reference

GB/T 14352 in this section constitute provisions 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

GB/T 14505 method for chemical analysis of rocks and ores General rules and regulations Principle

3 Sample in the presence of a flux, in a stream of air at 1200 °C ~ 1300 °C high temperature combustion, sulfur dioxide release form for air Flow into the carrier tape filled with water absorber starch as indicator, titrate with potassium iodate standard solution produced by the reaction of sulfurous acid, calculated the amount of sulfur.

4 Reagents

Unless otherwise stated in this section are consistent with the use of analytical reagent and GB/T 6682 analytical laboratory use in the analysis.

4.1 copper oxide (of CuO) [linear, or lead oxide (of PbO), a sulfur-containing volume is less than 0.00 x%].

4.2 silica (particle diameter 0.125mm, burning at 1000 °C 2h, there should be no blank).

4.3 starch absorption liquid hydrochloric acid. Weigh 0.4g soluble starch, add water into a paste, add 100mL freshly boiled water and continue to boil 1min The solution was transparent, cold But add water to about 800mL, 3mL hydrochloric acid was added (rho1.19g/mL), diluted with water to 1000mL, shake.

4.4 potassium iodate standard solution preparation and calibration.

a) potassium iodate standard solution $c(1/6KIO_3) = 0.015\text{mol/L}$. Weigh 0.5350g potassium

iodate, placed in 1000mL beaker, Potassium hydroxide containing 1g, 5g of potassium iodide dissolved in water 400mL, diluted with water to 1000mL, shake;

b) potassium iodate standard solution $c(1/6KIO_3) = 0.005\text{mol/L}$. Weigh 0.1783g potassium iodate, placed in 1000mL beaker, Potassium hydroxide containing 1g, 5g of potassium iodide dissolved in water 400mL, diluted with water to 1000mL, shake;

c) potassium iodate standard solution $c(1/6KIO_3) = 0.001\text{mol/L}$. Pipette 200mL potassium iodate standard solution [4.4b)], into 1000mL volumetric flask containing 0.8g of potassium hydroxide, an aqueous solution of 400mL 4g of potassium iodide, diluted with water to the mark with Degree, shake;

d) Calibration. Weigh and analyze the composition of the sample and roughly the same amount of sulfur standard sample in triplicate, according to the analysis step (7) for calibration. Poor value triplicate samples of potassium iodate standard solution consumed no more than 0.20mL, can be averaged. And at the same time