

ICS 73.060

CCS D40



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

GB/T 14353.9-2010

Replacing GB/T 14353.9-1993

**Methods for chemical analysis of copper ores, lead ores and
zinc ores - Part 9: Determination of molybdenum content**

铜矿石、铅矿石和锌矿石化学分析方法 第9部分：钼量测定

Issued on: November 10, 2010

Implemented on: February 1, 2011

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

Table of Contents

Foreword

1 Scope

About this edition

Classification and status

How a Chinese national standard is set out

About this English translation

Foreword

GB/T 14353 "copper ores lead ores and zinc ores chemical analysis method" is divided into 18 parts.

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

1 Scope

GB/T 14353.9-2010 is the Chinese national standard on methods for chemical analysis of copper ores, lead ores and zinc ores - part 9: determination of molybdenum 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.

GB/T 14353 provisions of this part of the copper ore, lead ore, molybdenum determination of the amount of zinc ore. This section applies to copper ore, lead ore, determination of molybdenum content of zinc ore. Measurement range. Polarography 0.5µg/g ~ 10µg/g of molybdenum; thiocyanate spectrophotometry 0.005% to 2% molybdenum.

2 Normative references

The following documents contain provisions which, through reference in this text, constitute provisions of this section, dated references, all subsequent Amendments (not including errata content) or revisions do not apply to this section, however, encourage the parties to reach an agreement is part of the present study Whether 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
3 sulfuric acid - phenyl acetic acid - cinchonine - potassium chlorate system
POLAROGRAPHY

3.1 Principle Sample decomposition by alkali fusion, hot water extraction. Iron, titanium, cobalt, nickel and other elements and molybdenum hydroxide precipitate was separated from the sulfuric acid - phenyl acetic acid - oct Ning - potassium chlorate system, molybdenum, a sensitive polarographic catalytic wave. On Polarograph starting potential is -0.02V (saturated calomel electrode as reference Ratio), peak potential is -0.28V Department, with Polarograph derivative portion measuring peak current value to calculate the amount of molybdenum.

3.2 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.

3.2.1 sodium peroxide.

3.2.2 sodium hydroxide.

3.2.4 sulfuric acid (11), Warning. Improper dilution can be dangerous

3.2.5 benzene glycolic acid solution (100g/L). Weigh 10g of benzene glycolic acid, add water 50mL, micro heat solubilizing (if required turbidity filter into 100mL volumetric flask, and washed with water Filter), dilute to the mark.

3.2.6 cinchonine solution (4g/L). Weigh 0.4g cinchonine, add 4 drops of sulfuric acid (3.2.4), add water, dissolved and transferred to 100mL volumetric flask, dilute with water to the mark, Shake well.

3.2.7 potassium chlorate solution (60g/L). Weigh 30g of potassium chlorate was added 400mL of water, heated to dissolve, cooled and diluted to 500mL, stir well.

3.2.8 Molybdenum Standard Solution.

a) Molybdenum standard stock solution [$\rho(\text{Mo}) = 100.0\mu\text{g/mL}$]. 0.1500g weighed molybdenum trioxide (99.99%) (500 °C burning 1h, cooling backup), placed in a beaker of 100mL, 10mL was added sodium hydroxide solution (200g/L) was dissolved with sulfuric acid (3.2.4)