

ICS 73.060
CCS D40



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

GB/T 14352.8-2010

Replacing GB/T 14352.8-1993

**Methods for chemical analysis of tungsten ores and
molybdenum ores - Part 8: Determination of nickel content**

钨矿石、钼矿石化学分析方法 第8部分：镍量测定

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**

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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 14352.8-2010 is the Chinese national standard on methods for chemical analysis of tungsten ores and molybdenum ores - part 8: determination of nickel 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 specifies the method for the determination of tungsten ores and molybdenum ores in nickel content. This Part applies to tungsten ores and determination of nickel content of molybdenum ore. Measurement range. Polarography $5\mu\text{g/g} \sim 500\mu\text{g/g}$ nickel, flame atomic absorption spectrophotometry to $10\mu\text{g/g} \sim 1000\mu\text{g/g}$ Nickel.

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 repair orders (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 3 dimethylglyoxime - sulfosalicylic acid - ammonia - ammonium chloride polarography

3.1 Principle Sample by alkali fusion, the flooding, nickel, cobalt, iron hydroxide was precipitated may be separated from zinc, tungsten, molybdenum, tin, arsenic, vanadium, chromium and other elements. Salt Acid medium, with tributyl phosphate extraction resin separation and most of the iron in ammonia - ammonium chloride - sulfosalicylic acid - dimethylglyoxime base solution, the peak potential of about $1\text{s} -1.00\text{V}$ (saturated calomel electrode), catalytic peak current values measured oscillography derivative portion of nickel dimethylglyoxime produced calculate the amount of nickel.

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.

3.2.3 tributyl phosphate extraction resin (also available Polytrifluorochloroethylene - tributyl phosphate homemade).

3.2.5 perchloric acid (ρ 1.67g/mL), Warning. explosive materials, careful

3.2.6 hydrochloric acid (11).

3.2.7 hydrochloric acid (199).

3.2.8 Sodium hydroxide solution (10g/L).

3.2.9 sulfosalicylic acid solution $c[(\text{HO}) (\text{C}_6\text{H}_3\text{COOH}) \text{SO}_3\text{H} \cdot 2\text{H}_2\text{O}] = 2\text{mol/L}$.