ICS 73.080
CCS D53

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 14506.26-2010

Replacing GB/T 14506.26-1993

Methods for chemical analysis of silicate rocks - Part 26: Determination of cobalt content

硅酸盐岩石化学分析方法 第26部分：钴量测定

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

GB/T 14506 "Methods for chemical analysis of silicate rocks" 30 consists of the following components.

--- Part 1. Determination of water absorption;

--- Part 2. Determination of combined water;

--- Part 3. Determination of the amount of silica;

--- Part 4. Determination of the amount of aluminum oxide;

--- Part 5. Determination of total iron content;

--- Part 6. Determination of calcium oxide content;

--- Part 7. Determination of the amount of magnesium oxide;

--- Part 8. Determination of the amount of titanium dioxide;

--- Part 9. Determination of the amount of phosphorus pentoxide;

--- Part 10. Determination of the amount of manganese oxide;

--- Part 11. Determination of the amount of sodium hydroxide and oxide;

--- Part 12. Determination of the amount of fluorine;

--- Part 13. Determination of sulfur content;

1 Scope

GB/T 14506.26-2010 is the Chinese national standard on methods for chemical analysis of silicate rocks - part 26: determination of cobalt 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 73.080, CCS D53. 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 14506 provisions of this part of the determination of the amount of cobalt in silicate rocks. This section applies to the amount of cobalt determination in silicate rocks, also applies to the measurement of soil and stream sediments in the amount of cobalt. Measuring range. 25μg/g ~ 1000μg/g of cobalt.

2 Normative references

The following documents contain provisions which, through reference

GB/T 14506 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 14506.1 Silicate rocks - Part 1. Determination of water adsorption Principle

3 Sample alkali fusion sodium peroxide decomposition, water extraction, filtration, dissolve the precipitate with hydrochloric acid to separate the portion of the solution at pH5 acetate medium The cobalt content of 4 - [(5-chloro-2-pyridinyl) - azo] -1,3-diaminobenzene (5-Cl-PADAB) is formed of a composition of red complex 1.2, added salt After acid, into a stable complex of red wine. On a spectrophotometer at the wavelength of 570nm at measuring the absorbance, calculate the amount of cobalt.

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 sodium peroxide.

4.2 hydrochloride (11).

4.3 hydrochloride (298).

4.4 nitric acid (11).

4.5 phosphate (11).

4.6 Sodium hydroxide solution (20g/L).

4.7 Aqueous ammonia (11).

4.8 sodium acetate solution (500g/L). Weigh 50g crystals of sodium acetate (NaAc · 3H2O), was dissolved in water and dilute to 100mL. Such as muddy Cloud must filter after use.

4.9 iron solution. Weigh 0.57g of high-purity iron oxide, placed in 150mL beaker, add 10mL of concentrated hydrochloric acid, dissolved by heating, cooling, shift Into 100mL volumetric flask, dilute to the mark, shake. This solution 1mL containing 4mg iron. 4.10 4 - [(5-chloro-2-pyridinyl) - azo] -1,3-diaminobenzene (referred to as 5-Cl-PADAB or cobalt reagent) - ethanol solution (0.5g/L). Weigh 0.05g5-Cl-PADAB, placed in 100mL dry beaker, add 80mL ethanol, and dissolved (if insoluble materials placed temperature A water bath heated to help dissolve, as there insolubles are filtered) and transferred to 100mL volumetric flask, diluted with ethanol to the mark, shake.