

ICS 71.100.50
CCS B 71

SB

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

SB/T 10405-2006

**Methods for wet ashing procedures for preparing wood for
chemical analysis
(English Translation)**

Issued on: May 12, 2006

Implemented on: December 1, 2006

Issued by: Ministry of Commerce of the People's Republic of China

Table of Contents

Foreword
1 Scope
2 Normative references
3 Sample preparation
3.1 Sampling method
3.2 Determination of density
3.3 Sample preparation method
4 General safety precautions
5 Hydrogen peroxide-nitric acid digestion
5.1 Principle
5.2 Reagents
5.3 Operation process

Foreword

This standard is proposed and managed by the Ministry of Commerce of the People's Republic of China.

1 Scope

This standard specifies two methods for wet ashing of preservative wood.

This standard is applicable to the analysis of pretreatment of arsenic, chromium, copper, phosphate and other components in preservative wood.

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if it is possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

GB/T 1933 Wood Density Determination Method

3.1 Sampling method

Take a representative sample, the sampling site should avoid thrift, cracking and stress wood, and should be more than 30cm from the end. Hollow Drill sampling, when sampling with a hollow drill, the volume of the sample to be tested should be calculated.

3.2 Determination of density

The density of the sample was measured in accordance with GB/T 1933 wood density measurement method, expressed in kilograms per cubic meter (kg/m³).

3.3 Sample preparation method

The wood sample is comminuted to pass through a No. 30 standard sieve.

4 General safety precautions

4.1

Special safety precautions for the use of perchloric acid digestion methods are described in Section 6.3.

4.2

The acid used in this standard produces toxic fumes and should be operated in a fume hood with good venting throughout the operation.

Operators should wear protective safety equipment such as protective glasses.

4.3

Do not allow the digestion solution to be dried to prevent explosion.

5.1 Principle

After the sample is decomposed by hydrogen peroxide-nitric acid, the element to be tested becomes soluble and then quantitatively determined.

5.2 Reagents

- a) concentrated nitric acid (70%, AR);
- b) Hydrogen peroxide (50%, AR).

5.3 Operation process

The wood powder sample is dried in an oven at 125 ° C for about 2.5 h to constant weight, and the analytical balance with a sensitivity of 0.1 mg is accurately weighed out about 5 g.

The sample was placed in a 500 mL flask, and 75 mL of concentrated nitric acid was slowly added along the wall of the bottle to completely wet the wood powder (equivalent to a test per gram of wood powder).

Add 15 mL of concentrated nitric acid). Add three glass beads and heat slowly on the hot plate;

After the initial reaction to form brown smoke, heating is continued until the solution becomes clear and transparent. Cool down, add 5mL peroxygen drop by drop