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

LY/T 1616-2022

Wood activated carbon test method

木质活性炭试验方法

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting.

This document replaces LY/T 1616-2004 "Method for Determination of Conductivity of Activated Carbon Water Extract", LY/T 1786-2008 "Activated Carbon Sheet Determination method of nic acid adsorption value", LY/T 2615-2016 "Test method for determination of lead content in wood activated carbon atomic absorption spectrum Law", LY/T 3013-2018 "Determination of Chloride and Sulfate in Wood Activated Carbon by Ion Chromatography" and LY/T 3155-2019 "Activity Determination of carbon and benzene adsorption rate". In addition to structural adjustments and editorial changes, the main technical changes are as follows.

---Unified the particle size of the samples to be tested;

--- Unify the drying temperature of the samples to be tested;

--- Added the method of turbidimetric determination of lead content in wood activated carbon.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

As an excellent adsorbent, activated carbon is widely used in air purification, water treatment, flue gas treatment and other fields.

The standards for quality activated carbon test methods were revised and integrated. This document is a reference to LY/T 1616-2004 "Method for Determination of Conductivity of Activated Carbon Water Extract".

Method", LY/T 1786-2008 "Determination of Tannic Acid Adsorption Value of Activated Carbon", LY/T 3013-2018 "chloride and Determination of Sulfate Ion Chromatography", LY/T 2615-2016 "Test Method for Determination of Lead Content in Wood Activated Carbon Atomic Absorption Light the revision and integration of five standards including Spectrum Method, LY/T 3155-2019 "Determination of Benzene Adsorption Rate of Activated Carbon".

Test methods for wood activated carbon - Part 1: Determination of conductivity of water extract

1 Scope

This document specifies a method for the determination of the conductivity of activated carbon water extracts.

This document applies to wood-based activated carbon and also applies to coal-based activated carbon.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references for documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 6682 Analytical laboratory water specifications and test methods GB/T 8170 Numerical rounding off rules and expression and determination of limit values GB/T 9721 General rules for molecular absorption spectrophotometry of chemical reagents GB/T 33087 Specifications and test methods of high-purity water for instrumental analysis

3 Terms and Definitions

The following terms and definitions apply to this document.

The mass of activated carbon per unit volume of tannic acid solution.

Note: The unit is milligrams per liter (mg/L).

Tannic acid adsorption value tannicvalue the concentration of activated carbon required to reduce the concentration of tannic acid from 20 mg/L to 2 mg/L.

Note: The unit is milligrams per liter (mg/L).

4 Principles

Activated carbon contains impurities such as soluble inorganic salts, which can cause changes in the conductivity of aqueous solutions after being dissolved in water. By testing the changes in conductivity it reflects the content of soluble inorganic salts in activated carbon.

5 Reagents or Materials

Use the third-grade water (ie distilled water) in GB/T 6682.

6 Instruments and equipment

6.1

Conductivity meter, measuring range. $0\mu\text{S}/\text{cm}\sim 105\mu\text{S}/\text{cm}$, error. $\leq \pm 1.5\%$.