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SN/T 3236-2012

Test method for identification of textile fibers. Raman spectrometry

纺织纤维鉴别试验方法 拉曼光谱法

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Zhejiang Exit Inspection and Quarantine.

Drafters of this standard. Wu Jian Jian, Sun Guojun, Xie Weibin, Chen Qi group.

Test method for identification of textile fibers Raman spectroscopy

1 Scope

This standard specifies the method for the determination of Raman spectroscopy Identification of textile fibers.

This standard applies to all kinds of textile fibers.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

FZ/T 01057.1 Test method for identification of textile fibers - Part 1. General Description Principle 3 when a laser beam is irradiated sample to produce inelastic collisions between the sample molecules and photons, which produce Raman scattering. Pull the aid instrument Intensity values corresponding Raman shift values plotted Raman scattering, you can obtain this sample Raman spectroscopy, Raman spectroscopy every shift

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characteristic peaks package Containing information on the molecular structure of the sample. Different materials have different Raman spectra. Using this principle, the unknown and the known fiber fibers Raman spectra are compared to distinguish the type of fiber.

4 Instrument

Raman spectroscopy. a laser light source, a light source wavelength of 785nm or 830nm, spectral range is not less than 300cm-1 ~ 3000cm-1, Spectral resolution of less than 5cm-1.

5 Sampling

Prepared in accordance with FZ/T 01057.1 in the specimen sampled.

6 Pretreatment of the sample

Usually without going through the sample pretreatment, if the sample is mixed with non-fibrous materials such as oils, waxes and other impurities, according to FZ/T 01057.1 the sample pretreatment method to remove impurities. For some black or phosphor-containing samples should be bleaching treatment.

7 Measurement Program

7.1

Open Raman spectroscopy, a half-hour warm-up instrument to stabilize.

7.2

Select the appropriate source wavelength, the number of scans.

7.3

will focus on the sample holder Rula Man bracket laser spectrometer, and the measurement is recorded 300cm-1 ~ 2500cm-1 Raman

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