

ICS 11.220
CCS B 41

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

SN/T 5275-2019

**Technical specification for identification of ivory and its
products**

象牙及其制品鉴定技术规范

(English Translation)

Issued on: January 1, 1970

Implemented on: July 1, 2020

Issued by: General Administration of Customs

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Foreword

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

Please note that some contents of this document may involve patents, the publication of this document the agency is not responsible for identifying these patents.

This standard was proposed and managed by the General Administration of Customs of the People's Republic of China.

1 Scope

This standard specifies morphological and molecular biological identification methods for ivory and its products.

This standard applies to the identification of ivory and its products.

2 Normative references

The following documents are indispensable for the application of this standard. For dated reference documents, only the dated version is applicable to this standard. For undated reference documents, the latest version (including all amendments) is applicable to this standard.

GB/T 6682 Analytical laboratory water specifications and experimental methods

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Ivory

The specialized upper incisors of the Mammal Proboscis.

3.2 Living ivory elephant tusk

Ivory derived from Asian elephants (*Elephas maximus*) and African elephants (*Loxodonta africana* and *Loxodonta cyclotis*), also Called elephant tusks.

3.3 Mammoth tusk

From the extinct elephant family Mammoth (*Mammuthus primigenius*) ivory.

3.4 Raw ivory

Any shape of ivory that has not been polished or engraved, including whole ivory and any form of ivory and ivory slices.

3.5 Worked ivory

Ivory that has been fully or partially processed (engraved, polished, shaped, etc.), including the entire ivory whose entire surface has been polished or engraved.

Among them, the ivory products made of living ivory are living ivory products, and those made of mammoth ivory are mammoth ivory products.

3.6 Ivory cavity

The cavity at the root of the ivory gradually becomes smaller along the extension direction of the ivory.

3.7 Schreger structure

The three-dimensional structure that exists in the dentin of ivory. In the cross section of ivory, it can be seen that radiating from the center to the outer edge, regularly arranged, and clockwise Net-like or sharp-angled texture formed by arcs or near-oblique lines extending in a counterclockwise direction; more regular arrangement and broken lines can be seen on the longitudinal section of ivory Continuing nearly linear texture, or undulating ripples, mountain-like texture.

3.8 Schreger lines

The ivory cross section constitutes the arc-shaped lines of the Shi's structure.

3.9 Schreger angles

The angle formed by the intersection of the Shi's lines extending outward in different directions. Among them, the opening facing the cementum layer is the convex Shi's angle, and the opening facing the angle to the pulp cavity is the concave Shih's angle, and the one near the cementum layer is the Shih's angle on the outer edge.

4 Abbreviations

The following abbreviations apply to this document.

DNA. deoxyribonucleic acid Nested PCR. Nested polymerase chain reaction, referred to as Nested PCR (Nested polymerase chain reaction) PCR. polymerase chain reaction (polymerase chain reaction)

5 Reagents and materials

The reagents used below are of analytical grade unless otherwise specified. The water used is double distilled water or deionized water, which should comply with GB/T 6682 the requirements of the prescribed first-class water. All water involved in molecular biology operations is DNase-free and RNase-free water.

5.1

DNA extraction kit.

5.2

PCR amplification reagents.

5.3

TBE running buffer.

5.4

Agarose (electrophoresis grade).

5.5

Disodium ethylenediaminetetraacetic acid (EDTA).

5.6

DNA molecular weight standards (100 bp-2000 bp).

5.7

Replace nucleic acid stain with EB or EB.

5.8

Proteinase K.

5.9

Sodium hypochlorite.

5.10

Absolute ethanol.

5.11

Trichloromethane.

5.12

PCR reaction tube..200 µL.

5.13

Eppendorf centrifuge tube. 1.5 mL.

5.14

Tips with filter elements (10 µL, 20 µL,.200 µL, 1000 µL).

6 Instruments and tools

6.1

Thermal cycler.

6.2

Electrophoresis instrument.

6.3

Gel imaging system.