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

GB/T 22056-2018

Replacing GB/T 22056-2008

Microscopes -- Marking of objectives and eyepieces

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Foreword

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

This standard replaces GB/T 22056-2008 "Laboratory of Objectives and Eyepieces of Microscopes". Compared with GB/T 22056-2008, mainly

The changes are as follows.

- Added Chapter 2 normative references;
- Table 1 adds an example of the cover glass thickness range of 0.14mm~0.20mm; the sign of the number of fields of view of the objective lens is increased;
- Table 2 adds the mark of the correction ring, and the contents of the note have been modified as appropriate;
- In Table 3, the footnote was changed to Note, and the original Note 2 was deleted;
- Table 5 removes the mark of the correction type.

This standard uses the redrafting method to modify the use of ISO 8578.2012 "marks of microscope objectives and eyepieces."

There are technical differences between this standard and ISO 8578.2012, and the terms involved in these differences have been passed through the margins on the outer side of the page.

The vertical single line (|) is marked.

The main technical differences between this standard and ISO 8578.2012 and their reasons are as follows.

- Increased the scope of application of the standard.
- About the normative reference documents, this part has made technical adjustments to adapt to China's technical conditions, specific

The national standards are as follows.

* Replace ISO 8036 with GB/T 26600 modified to international standards.

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Optical and Photonics Standardization Technical Committee (SAC/TC103).

This standard is mainly drafted by. Nanjing Donglilai Optoelectronic Industry Co., Ltd., Guangzhou Yuexian Optical Instrument Co., Ltd., Nanjing

Jiangnan Yongxin Optical Co., Ltd., Ningbo Teaching Instrument Co., Ltd., Shanghai Institute of Technology, Ningbo Zhanjing Optical Instrument Co., Ltd., Zhangzhou Olympics

Card Optical Instrument Co., Ltd., McAudi Industrial Group Co., Ltd., Ningbo Yongxin Optical Co., Ltd., Ningbo Haoyu Instrument Co., Ltd., Ning

Bohuaguang Precision Instrument Co., Ltd.

1 Scope

This standard specifies the signs of the microscope objective and eyepiece and the color and position of the color circle of the objective lens magnification and impregnation medium.

This standard applies to objective lenses and eyepieces for biological, metallographic and polarizing microscopes.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 26600 Microscope optical microscopy immersion liquid (GB/T 26600-2011, ISO 8036.2006, MOD)

ISO 19012-1 Microscope microscope objectives - Part 1 . Field of view flatness

ISO 19012-2 microscope microscope objective design - Part 2. chromatic aberration correction

3.1 Required signs on the objective

The signs on the objective lens are shown in Table 1.

The length of the barrel and the thickness of the coverslip are shown in a row in a row and

separated by a diagonal line, for example. infinity/0.17; 160/-; infinity/0.

The mechanical barrel length and the thickness of the coverslip should be smaller than the status marks in Table 3. The number of fields of view (OFN) should be expressed as follows.

OFN25

Table 1 Required signs on the objective lens

Example of the content flag of the optical characteristic mark a

magnification

The horizontal magnification of the objective lens with a distance of 100

Magnification and numerical aperture are separated by a slash

Example. 100/1.30

The horizontal magnification of the objective lens from infinity is 100x

The magnification value of the infinity corrected objective lens is only the phase

The combination of the lens barrels is effective. The symbol "x"

The magnification of the objective lens used to represent infinity correction

Aperture numerical aperture/1.30 numerical aperture must be determined to two decimal places

Variable aperture numerical aperture limitation range/1.30-0.80

It should be marked by the iris at the position of the normal mark numerical aperture

Upper and lower limits of the controlled numerical aperture range

Liquid immersion medium

Oil according to GB/T 26600 OIL

Water W

Glycerin according to GB/T 26600 GLYC

other

Color circles can be used as additional markers (see Table 2)

Require any other immersion media to be marked