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

GB/T 32696-2016

**Photography -- Determination of residual thiosulfate and other related
chemicals in processed photographic materials -- Methods using
iodine-amylose, methylene blue and silver sulfide**

摄影 已加工过的摄影材料上残留的硫代硫酸盐和其它相关的化学品的测定方法
碘直链淀粉、亚甲基蓝和硫化银法

(English Translation)

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Foreword

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

This standard uses the translation method equivalent to the use of ISO 18917.:1999 "photographic processed photographic materials on the remaining thiosulfate and Other related chemicals - Determination of iodine - amylose, methylene blue and silver sulfide.

This standard is proposed by the China Petroleum and Chemical Industry Association.

This standard is nationalized by the National Standardization Technical Committee for Photographic Materials (SAC/TC102).

The drafting unit of this standard. China Lokai Group Co., Ltd.

Introduction

This standard is one of the series of specifications for photographic processing. Those who do not have knowledge of chemical applications sometimes use this international standard quasi. Therefore, the use of the letter code symbol system gives a hazard warning and indicates the nature of the hazard. More about harm, operation and these chemistry the details of the product can also be obtained from the manufacturer.

Determination of residual thiosulfate and its decomposition products in assessing the

adequacy of washing and photographic film, dry board, the long side is useful. Insufficient water washing can cause loss of image density and formation of stains in low density areas.

The determination of residual thiosulfate and its related compounds is not sufficient to ensure the permanence of the photographic recording material. Long or Archive storage also consider the surrounding contact with the material, storage environment and other factors. These considerations are found in ISO 3897, ISO 5466, ISO 6051 and ISO 10602.

Photography has been processed on the photographic material left Thiosulfate and other related chemicals Determination of iodine - amylose, Methylene blue and silver sulfide method

1 Scope

1.1

This standard provides a detailed description of how to determine the residual thiosulfate and other related chemicals for processed photographic materials.

1.2

This standard applies to the final use of thiosulfate fixation and washing of gelatin silver halide products, this standard does not apply to stable black and white Products, hot-working films or snapshots. The procedures given in this standard are used to detect residual thiosulfates, and the silver densitometer method the residual polysulfate material can be measured. The measurement procedures described in this standard are limited by the stability of the processed photographic material , The limitations of which are described in Appendix A and Appendix B.

1.3

Determination of residual thiosulfate content by iodine-amylose or methylene blue method, photographic layer for both sides, A film or a dry sheet having a gelatin back layer having a photographic light-sensitive layer on its surface, and the amount of thiosulfate contained after processing is only one the coating of the topcoat is about twice that of the sample.

Note: The results of this report, see Figure 1, Example 2.

1.4

Iodine - amylose method can be used for barium paper, coated paper and film and dry board. This method is used for films containing the developer and photographic paper.

1.5

methylene blue method can be used for barium photo paper, coated paper and film and dry board, but can not be used for the film containing the developer and photo paper.

1.6

silver sulfide density measurement in a specific test conditions with silver ions from the chemical reaction of silver "stain" products in the thiosulfate Salts, even polysulfates and all other residual chemicals.

1.7

A summary of the method, scope, etc. in tabular form, see Appendix B.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 11501-2008 Photographic density measurement - Part 3. Spectral conditions (ISO 5-3.:1995, IDT) ISO 10349-1.:1992 Photographic grade - Test methods - Part 1. General terms (Photo - Photo -graphic-gradechemicals-Testmethods-Part 1. General)

3.1.1 Operation

The reagents should be operated in accordance with the health and safety precautions given in the packaging or other information. Correct preparation of reagents the label shall contain the name of the chemical, date of preparation, date of validity, date of re-calibration, name of the preparation and appropriate health and safety precautions Application Reagent emissions comply with environmental regulations.